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LECTURES
ON
MEDICAL JURISPRUDENCE,
NOW IN COURSE OF DELIVERY,
AT THE
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BY PROFESSOR A. T. THOMSON.

LECTURE XXXVIII.

ARSENIC AND ITS PREPARATIONS:—*Their mode of action. The three varieties of symptoms produced by these poisons. Slow poisoning of the Italians with arsenious acid. Post-mortem appearances in poisoning by arsenic. Chemical evidence. Apparatus for the processes of testing. Arsenious acid. Iodide of arsenic. Comparison of the value of the different processes for testing arsenical poisons. Examination of bodies buried previous to suspicion of poisoning with arsenic. Case in illustration.*

GENTLEMEN:—I have now to direct your attention to the class of arsenical preparations, which are the most important genus of poisonous substances. They are so because they are the most commonly employed by the suicide and the murderer, in the lower orders of society. Ignorance of their effects, conspiring with notions of their certainty of destroying life, not only guides individuals, in that class, to employ them, but these opinions lead them to use these poisons in the most clumsy form, namely, in the solid state. Under these circumstances a knowledge, both of the symptoms which characterise the poisonous action of arsenical preparations, and, also, of the modes of detecting them, are of the utmost importance to the medical jurist.

Arsenical preparations, whether taken into the stomach, or externally employed, operate both as powerful local acrids, and, by a secondary influence on the nervous system, all of them, with a few exceptions, are poisonous agents. Metallic arsenic, and its alloys with other metals; and also arsenical pyrites, which are natural combinations of arsenic, sulphur, and iron, are inert. The *pure* sulphurets, however, both natural and artificial, are poisonous, owing to the arsenic which they contain becoming readily oxidized in the animal fluids of the stomach. This fact was fully demonstrated by the experiments of M. DECOURDEMANCHE, who found that orpiment, put into tepid water, and even into cold water, is slowly decomposed, by its aiding the decomposition of the water, the hydrogen of which unites with the sulphur of the orpiment, and forms sulphuretted hydrogen, whilst the oxygen oxidizes the arsenic, and renders it active.

The natural, simple sulphuret, realgar, is poisonous, owing to the same change taking place.

The common orpiment of the shops is still more poisonous than even realgar, from the circumstance of its containing a large proportion, sometimes 96 per cent., of arsenious acid, as GUIBOURT has demonstrated. It is made by subliming a mixture of sulphur and common arsenic in close vessels. The presence of the arsenious acid is evident when it is procured in concave masses, for in these we find it in white tetrahedal crystals. Another impure sulphuret, king's yellow, which is used as a pigment, and sometimes as a fly-powder, is equally poisonous: it is a compound, according to the experiments of Dr. CHRISTISON, of sulphuret of arsenic, lime, and free sulphur. It has been used for the destruction of life, both by the suicide and the murderer. Dr. CHRISTISON mentions, that it was employed by a suicide in Edinburgh, and proved fatal in thirty-six hours; and in 1822 a woman was tried at Glasgow for poisoning her child with it.

The protoxide of arsenic, which is a black powder, formed on metallic arsenic when it is exposed to the air, is also poisonous. It is much used as a fly powder in France and in Germany. Dr. JAGER, in his work, "De Effectibus Arsenici," mentions a case of a girl who died of drinking water which had stood over this powder.

The other arsenical preparations which are poisonous, are the white oxide, or arsenious

acid, the arsenite, and the arseniate of potassa. The most virulent is the arsenious acid: but they all act nearly in the same manner, differing only in the severity of the symptoms. Let us examine what these are:—

Poisoning by arsenious acid, and other arsenical preparations, displays three varieties of symptoms:—

First Variety.

When arsenical poisons have been taken into the stomach, in a large dose, the first effect is sickness and fainting: there is sometimes a pricking and burning sensation felt in the throat. In the trial of Miss Blandy, who poisoned her father by administering arsenious acid in his gruel, a burning sensation in the gullet invariably followed the administration of each portion of gruel containing the poison. But this does not always happen. Much depends on the vehicle in which the poison is administered, and whether it be given in solution or in powder. Sickness and fainting come on at various distances of time, after taking the dose. The shortest space recorded was in a case mentioned by Valentini, in which the symptoms displayed themselves whilst the person was eating the soup which contained the poison: the longest is in a case related by Orfila, in which no indications of poisoning occurred for five hours. The average time is from fifteen to twenty minutes. In a case which came under my own care, twenty minutes elapsed. It is of great importance to ascertain this; as well as how long after a meal, or after drinking, the symptoms of poisoning commence. The next symptoms are, a burning sensation at the stomach, with extreme tenderness on pressure; vomiting and retching, augmented on taking fluids. Indeed, if the vomitting cease for a little, it is again produced by swallowing any kind of drink. Often there is a sensation of dryness, and constriction of the throat; great thirst; tightness of the skin of the face and neck; and the voice becomes hoarse. The matters vomitted are generally of a greenish or yellowish colour; sometimes they are streaked with blood. The burning sensation, as it increases, extends over the whole of the abdomen. I must remark, that in some of the cases recorded, no mention is made of this burning sensation.

Diarrhœa, but not always, follows the symptoms already mentioned. Sometimes there is tenesmus without diarrhœa; the belly is occasionally drawn inwards at the navel; sometimes, on the contrary, it is swollen or distended. When the purging is severe, the anus is excoriated; cramps and convulsions supervene, and extend from the trunk to the extremities. Besides the abdomen and alimentary canal, the chest is often affected; the breathing becomes laborious; and, occasionally, though rarely, there is palpitation of the heart. The pulse is generally small, rapid, and feeble, although sometimes it is slow. In a case which was attended by Mr. Unwin, apothecary, in Bishopsgate, the pulse was only 40, and languid, about twelve hours after the poison had been taken: in five hours afterwards, it sunk to 30. The man died four hours after that time.*

Along with this state of the vascular system, the skin is cold and clammy, and the extremities are livid. The urinary organs are affected with painful micturition; there is often excoriation of the labia in females; sometimes there is total suppression of urine, but at other times ardor urinæ supervenes. By degrees, the countenance displays an expression of great anxiety; and, when the pain is severe, it is easily recognised by the physiognomy of the sufferer. The eyes become red; delirium follows, with stupor; and this continues until death calmly closes the scene.

These symptoms are not always progressive, but marked intermissions occur. This influence of the poison on the nervous system was well displayed in Dr. Roget's case,† which recoverd. Convulsions and hysterical symptoms came on, after seven days had passed over; they lasted two hours, and, "during the remainder of the night the patient continued insensible, with occasional moanings and twitchings of the limbs."

Second Variety.

Such are what may be tremed the irritative effects of the poison, when it acts directly on the stomach. In the second variety, when the poison is taken in solution, it operates in a different manner. The symptoms are similar to those which are displayed in poisoning by opium, or some other narcotic substance. The vomitting occurs, but it soon ceases; the faintness is more urgent; collapse, stupor, convulsions, and death close the scene, as soon as if the local erosion had taken place. In operating in this manner, the poison seems to alter both the irritability and the sensibility of the brain.

Many cases of this description are on record. Professor Chaussier details one in which a large quantity of arsenious acid was swallowed in fragments; the man died in a few hours: great debility and tendency to fainting were almost the only symptoms: neither the stomach nor the intestines displayed tokens of excitement during life; and no marks of its existence were obvious on the examination of the body after death.‡

A similar case is related by M. Laborde. A young woman swallowed a considerable number of small fragments of arsenious

* Edin. Journal, vol. v. p. 360.
† Med. Chirurg. Trans. ii. p. 147.
‡ Archives Generales de Medicine, vol. vii, 14. Jour. de Medicine, lxv, p. 89.

acid. As she was seen swallowing the poison, a physician was sent for immediately; he forced her to drink, which caused vomitting, but without much uneasiness; in two hours afterwards, her countenance expressed much anxiety, but she was tranquil; she gradually became drowsy; then remained calm for four or five hours; and, finally, on trying to sit up, complained of pain in her stomach, and expired without a groan.

The narcotic symptoms of the poison are more generally perceived when it is externally applied. A striking case of this kind is detailed in the "Ephemerides Curiosorum Naturæ," of a fatal result from applying a solution of arsenic to the mucous membrane of the nostrils, instead of a lotion of acetate of lead. The symptoms were a profuse discharge from the nostrils, followed by stupor approaching to coma; weakness of sight, and defect of memory, after the sensibility returned. The person lingered in bad health for two years, fell into convulsions, and died.

The most frequent cases of the narcotic effects of arsenious acid occur when the solution is taken; so that absorption quickly occurs; and the general action is displayed before the local inflammation is fully developed. Cases illustrative of this variety of poisoning by arsenious acid may be read in the second volume of the "Edinburgh Medical and Chirurg. Transactions;" in the thirty-fourth volume of the "London Med. and Phys. Journ;" the "Archives de Medicine," vol. vii.; in "Morgagni;" and in the seventieth volume of the "Journ. de Medicine." The practical inference to be deduced from them, is, that arsenious acid may prove fatal without any violent and marked symptoms.

Third Variety.

In the third variety, death does not occur. In general the poison is vomitted. The first train of symptoms is violent, resembling those of the first variety; the second are those of nervous irritation, not unlike the symptoms of poisoning by carbonate of lead; prior to which, convulsions, resembling those of tetanus, or hysteria, or epilepsy, present themselves. In two of those persons who suffered in ELIZA FENNING'S case: in one, epilepsy occurred on the first day; in the other, the fits did not come on until the night after the first day; but they continued for fifteen days, recurring at the same hours; and, after an intermission of eight days, they again returned, and appeared frequently for many months.

For a curious instance of nervous symptoms, supervening the swallowing of arsenious acid, consult the "Edin. Journ." vol. xv. p. 556. Many other cases of the same kind might be adduced if it were necessary. Among the nervous symptoms, palsy sometimes occurs, as a secondary effect of poisoning by arsenious acid; not unfrequently of a local kind; sometimes the hands, at others the whole arms are affected; sometimes clonic contractions of the limbs take place. Mania has been known to appear as a sequel of poisoning by arsenious acid, but in this case there is always an hereditary predisposition to the disease. In some cases which recover from the primary symptoms, dyspepsia and emaciation, the cases terminate fatally after several years, supervene.

It was this last effect of arsenic on the living system, gradually undermining the powers and sapping the fortress of health, that enabled the Italian proficients in the art of slow poisoning to carry on their murderous art with so much certainty. GABELLI, physician to CHARLES VI., Emperor of Austria, investigated the nature of the Aqua Toffana, the most celebrated of the slow poisons, the dread of every noble family in Italy, and found that it was a solution of arsenious acid in aqua cymbalariæ. It closely resembled the tasteless ague drop of our fenny counties; was colourless, limpid, and tasteless, and given in doses of from four to six drops. "It produced," says HAHNEMANN, "a gradual sinking of the powers of life, without any violent symptoms; a nameless feeling of illness, failure of strength, slight feverishness, want of sleep, an aversion to food, drink, and the other enjoyments of life, and lividity of countenance. Dropsy often closed the scene, along with black miliary eruptions and convulsions, or colliquative perspiration and purging." When death ensues, the next evidence is sought for in the appearances which the body presents on

The post mortem examination.

1. The external appearance of the body, in general, affords us little information; but occasionally livid spots are seen on the skin; and, in more than one instance, the body has exhaled a very offensive odour. This, however, is rare; as arsenious acid has an antiseptic property.

2. On looking into the mouth, the tongue appears inflamed and thickened; the pharynx is also red and inflamed, and the mucous membrane is separated with ease.

3. The stomach occasionally displays little appearance of the local influence of the poison, even when it can be picked out of the villous coat. Sometimes ulceration occurs, and a black coloured fluid is found in the serous cavity. When no ulceration is present, the stomach displays a deep red hue externally, whilst the villous coat is a bright red; and a brown, semi-opaque, thick fluid is found in its cavity. The pyloric portion is usually natural; but instances have occurred in which it has been found in a gangrenous condition.

4. The duodenum is sometimes of a dark purple hue, pulpy and thickened; the internal coat easily separated, and of a dark

colour; this gut is sometimes eroded, and perforated with holes, having a rugged edge.

5. The jejunum and ileum are red in spots, owing to inflammation.

6. The rectum and colon are almost always natural, unless in cases where the poison has been injected into the rectum.

7. The lungs are sometimes livid, and inflated.

8. The heart is usually natural, sometimes variegated with purple spots.

9. The liver and the spleen are often gorged, and the former is occasionally grey.

10. The bladder of urine is almost always greatly contracted; occasionally so much so as not to exceed the size of a walnut.

11. In the encephalon, the only part of the brain that appears to suffer is the choroid plexus, which is usually much injected. Such are the appearances on the post mortem examination. These, in conjunction with the symptoms, tend greatly to confirm the suspicion of the person having been poisoned by arsenious acid, or some arsenical poison.

Chemical evidence, however, is still required to enable us to decide with certainty.

A person has died of symptoms indicating that he had been poisoned by arsenious acid. The body has been opened, and the following matters have been obtained and preserved for examination.

1. Some gritty matter in the form of powder found in the stomach.

2. The vomitted matters; which have been carefully preserved.

3. The vessels in which the poison was supposed to be contained or administered: and, also, a paper containing a few particles of a white powder.

4. Some meal, or flour, or arrow-root, or sugar, which are supposed to have been the vehicles in which the arsenious acid, which was the cause of the death, was contained.

5. Some suspected broth, or tea, or milk, or some pieces of suet dumplings. How are we to proceed to obtain satisfactory evidence that the poison employed in this case was arsenious acid.

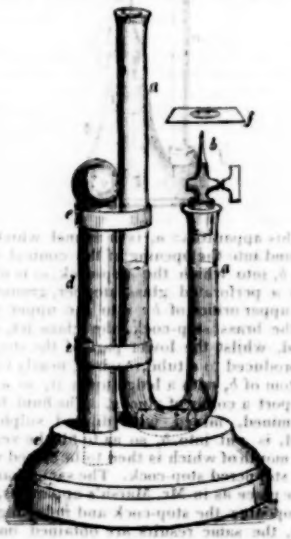
1. Let us suppose, in the first instance, that a paper containing a few particles of a white gritty powder, has been found; or a few grains have been picked out of the stomach.

If the powder be arsenious acid, fumes smelling strongly of garlic will be exhaled, when it is thrown upon incandescent coals. But this test may prove fallacious, and, at best, it can only be considered as putting us in the way of trying other tests: indeed every test depending on the senses of taste, or of smelling, should be viewed with suspicion, as much of the accuracy of the judgment that they enable us to pronounce, must depend on the condition of the health of the organs of these senses, and on many other circumstances. Zinc powder, when thrown upon burning coals, or when heated with charcoal on platinum foil, or even phosphate of soda, treated in the same manner, exhales nearly the same colour as arsenious acid. Besides, if the gritty powder be combined with a small portion of animal matter, frequently no garlic colour is emitted.

1. Rub some of it up with charcoal, and heat it on a piece of platinum foil; or on the point of a spatula.

b. To determine the fact which this simple experiment has displayed, throw a portion of the powder into the apparatus for obtaining and decomposing Asseniuretted hydrogen, by which $\frac{1}{150}$th of a grain of the acid can be detected in 45.000 parts of water.

This apparatus is the invention of Mr. Marsh of Woolwich. It consists of a glass

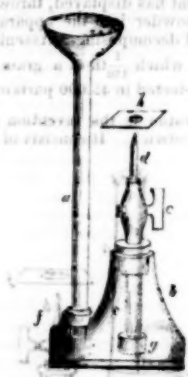


tube, *a*, *a*, bent upon itself, the two limbs of which are of unequal length, the shorter being only half the length of the longer. On the top of the shorter limb, the stop-cock, *b*, passes tightly through the axis of a soft sound cork.

The whole instrument is fixed to the wooden stand and pillar, *c*, *d*, *e*, *f*. In using the instrument, a piece of glass rod is first dropped into the shorter limb, and afterwards a piece of zinc bent double; and the fluid to be examined, mixed with diluted sulphuric acid, is to be poured into the longer limb, whilst the stop-cock is open, until it rises in the shorter one to about a quarter of an inch below the cork, when th

stop-cock should be shut. In a few minutes a quantity of gas is generated, and elevates the fluid in the longer limb, so that the gas is under a pressure equal to its weight. If arsenious acid be present it is decomposed, the gas formed is arseniuretted hydrogen, which burns the instant the stop-cock is opened, and a lighted match applied to it. If a piece of clean, well annealed glass, be now held over the flame, a circular stain of metallic arsenic is deposited upon it.

I have suggested the following modification



of this apparatus: *a*, is a funnel which is ground into the opening of the conical vessel, *b*, into which the stop-cock, *c*, is fitted into a perforated glass stopper, ground to the upper orifice of *b*: into the upper part of the brass stop-cock, the glass jet, *d*, is fixed, whilst the lower part of the stopper is produced to a tube, reaching nearly to the bottom of *b*, with a ledge upon it, so as to support a collar of zinc, *g*. The fluid to be examined, mixed with diluted sulphuric acid, is put into *b*, so as to fill the vessel, the mouth of which is then to be closed with the stoppered stop-cock. The same changes take place as in Mr. Marsh's apparatus, and by opening the stop-cock and inflaming the gas, the same results are obtained on the glass, *h*, held over the flame, if arsenious acid be present.

Both the sulphuric acid and the zinc should be pure, as that of commerce often contains arsenic, which may lead to errors.

If the powdered arsenious acid be suspected to be contained in any solid substance, as pudding, dumpling, or pastry of any kind, the substance must be boiled in pure distilled water, for a sufficient time, and filtered: wine and all fluids not of an animal nature, should be diluted with distilled water, and also filtered. If broths or animal compounds contain the acid, a larger apparatus is requisite; as even when alcohol is added to these fluids, so much froth is produced that it chokes the stop-cock, and extinguishes the flame.

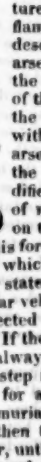
The apparatus which I employ is extremely simple: it consists of an open jar, *a*, to which is fitted a stop-cock similar to that in the former apparatus. This jar is filled with hydrogen gas, and is then placed in the jar, *b*, containing the suspected animal fluid, to which half an ounce of alcohol is added for every pint of the broth or other fluid, and this is mixed with a sufficient quantity of diluted sulphuric acid, and a quantity of granulated zinc. By opening the stop-cock of *a*, the pressure of the fluid in *b*, forces out a portion of the gas, and the fluid rises in *a*, according to the degree of pressure. The stop-cock is then shut till the gas generated lowers the surface of the fluid nearly to the bottom of the jar, when it is again opened, the gas inflamed, and the experiment conducted as with the other apparatus.

In treating substances which are suspected of containing arsenious acid, by these apparatuses, the object is to procure the products of the combustion of the arseniuretted hydrogen in three states, namely, metallic arsenic, oxide of arsenic, and arsenious acid. If no arsenious acid be present in the substances employed, the hydrogen gas which issues from the jet will burn with a bluish flame, the glass will be merely dulled by the water which is generated; and, owing to the heat which is evolved, it will be again cleared. But if arsenious acid be present in the substances tried, three excellent indications of it may be procured, namely, a spot of metallic arsenic at the part which the flame touches, a circle of dark-coloured oxide of arsenic surrounding this spot, and around this another circle of arsenious acid.

The theory of the operation is simple. The hydrogen formed by the decomposition of the water decomposes the arsenious acid, and combines with the arsenic, forming arseniuretted hydrogen in a gaseous state; when this is burnt, the hydrogen is abstracted from the arsenic, and again forms water with the oxygen of the air, whilst the arsenic in the metallic state is set free and deposited on the glass; a portion, however, of the separated arsenic is oxilized and deposited also on the glass, around the spot of metallic arsenic, as a black areola; and beyond this arsenious acid again formed by the complete oxidizement of the freed metal, is spread like a white powder. This mode of testing comprises every thing requisite

for the discovery of the arsenical poisons, and I might refer you to books for an account of the others; but as it may be necessary to employ some of them, I shall show you two or three of the best.

1. Acidulate slightly the suspected solution with diluted hydrochloric acid, filter, and pass through the filtered solution a stream of sulphuretted hydrogen gas. Collect, wash, and dry the precipitate, and having mixed a portion of it with two parts of black-flux, put it into a small tube with a bulb blown upon it (see Fig.), and lined with paper. Withdraw the paper, and heat the small part of the tube, *a*, in the flame of a spirit-lamp, gradually carrying it downwards to the bulb. If any water bedew the sides of the tube, soak it up with a piece of bibulous paper, wrapped round a wire; and when no more moisture is given off, keep the bulb in the flame of the lamp until it is incandescent. If the sulphuret contained arsenic, it will be decomposed, and the metallic arsenic will form a ring of the metal round the narrow part of the tube. On cutting off the bulb with a file, and driving the metallic arsenic from one end of the tube to the other, it will become again acidified, and be deposited in the form of minute crystals of arsenious acid on the sides of the tube.



This form of testing will answer for every fluid which can be obtained in a tolerably clear state; as for example, wine, tea, and similar vehicles, in which arsenious acid is suspected to be in a state of solution.

2. If the poison be contained in broth, as this always contains much fatty matter, the first step is to acidulate the mixture, and boil for a quarter of an hour, and filter. The muriates which always exist in broth are then to be precipitated by nitrate of silver, until an excess of the nitrate remains in the solution. On touching the surface of the fluid with a rod dipped in ammonia, a precipitate of king's yellow will fall if any arsenious acid existed in the broth.

3. Two tests which were formerly much relied upon, namely, the ammoniated nitrate of silver, and the ammoniated sulphate of copper, are both liable to great fallacies, and are therefore now seldom employed. The ammoniated nitrate of silver, nevertheless, detects one part of arsenious acid in 40.0000 parts of water; but it may happen that a precipitate closely resembling the arsenite of silver may result when no arsenious acid is present, from precipitating a solution of phosphate of soda with the nitrate of silver. The ammoniated sulphate of copper throws down Scheele's green of a pea-green hue; but fallacies in using this test may also arise from the broth containing onions; or the poison having been nux vomica instead of arsenious acid: a green colour is produced in both cases.

4. If we have only the vomited matters, or the contents of the stomach to act upon, we must proceed in the following manner:— Let the stomach be opened through its whole length, and collect its contents in a clean vessel. The internal coat of the stomach should be closely examined with a magnifying lens, through all its duplicatures, to ascertain whether any grains of arsenious acid adhere to the villous coat. These will feel gritty and firm between the fingers; for often minute white points are observed scattered over the mucous surface, which are merely fatty particles. The particles of the acid are sometimes found in the centre of small red spots. The whole interior of the stomach must next be well washed with boiling distilled water, and well boiled. The mixture must then be filtered and evaporated to dryness, and the residue again acted upon by water. This solution should next be filtered, the animal matter separated by hydrochloric acid, and the filtered fluid introduced into the apparatus for arseniuretted hydrogen gas, and treated in the same manner as the simple solution of arsenious acid.

5. If the contents of the stomach afford no indications of arsenious acid, it still remains to test the substance of the stomach and intestinal canal. The parts to be examined are those which bear indications of having been inflamed: they are to be cut into shreds and boiled with potassa. The animal matter is thus destroyed or dissolved, and the whole of the arsenious acid is taken up by the alkali. Having proceeded so far, it is then only necessary to strain and test the fluid in the apparatus for arseniuretted hydrogen gas. The arsenite is decomposed, and the metallic arsenic obtained as when the simple solution is tested.

Such are the best methods of detecting arsenious acid, and the arsenical preparations most likely to be employed as poisons. One preparation, however, has lately been introduced into use as a medicinal agent; and, as it is now beginning to be much employed, it may be overdosed and prove poisonous, the nature of its influence, as a poison, and the method of detecting it, when any fatal result has followed its use, should be known: I refer to the *iodide of arsenic*. The preparation, as usually found in the shops, is of a red colour, inodorous, and, at first, almost tasteless; but it leaves an extremely acrid sensation in the palate and the fauces; it operates nearly in the same manner as the arsenious acid, and displays both a local and a general influence on the animal economy.

Should a case of poisoning by this iodide occur, there would be no difficulty in obtaining satisfactory chemical evidence of the fact. Besides its physical properties, which

would lead to its recognition should any of the poison be found, its nature may at once be detected by testing for both its components. To obtain evidence of the iodine, we require only to heat it in a tube until the violet-coloured fumes of the iodine appear, and then introduce into the mouth of the tube a piece of paper moistened with mucilage of starch. The violet vapour and the blue iodide of amidine formed on the paper are sufficient evidence of the iodine. In reference to the arsenic, the solution of the preparation has only to be treated in the same manner as the arsenious acid in the apparatus for forming the arseniuretted hydrogen to enable us to testify to its presence, or, we may dissolve the preparation in water, and pour on the surface of the solution some gaseous chlorine; this evolves the iodine in a free state, and converts the arsenic into a chloride, which may then be decomposed in the apparatus for the arseniuretted hydrogen. The first of these modes of testing is the simplest, but the second should be adopted when the quantity of the poison to be operated upon is very small.

Comparison of the various tests.

Having mentioned the best modes of testing for arsenical poisons, let us now compare the value of the different processes. The following are the proofs to be looked for:—

1. The alliacious or garlic odour, this should be compared with the odour of the metal mixed with charcoal and volatilized on platinum foil. This is merely valuable as a prefatory step to authorize our farther inquiries, by giving us an assurance of the probability of finding that the poison is an arsenical preparation.

2. The production of the metal by whatever process it is procured. This should be determined by comparison with the metal sublimed in a tube. This is the most satisfactory of all the proofs, and the best process for obtaining it is that in which the arseniuretted hydrogen is formed and burnt.

3. The precipitates procured from the fluid-tests should all be compared with those procured in a simple aqueous solution of the arsenious acid. The sensibility of the three principal re-actions may be thus stated:—

Ammoniated sulphate of copper is capable of detecting one part of arsenious acid in 5.200 parts of water; ammoniacal nitrate of silver, 1 in 400.000; sulphuretted hydrogen, 1 in 200.000 parts.

In every experiment nothing should be done in a hurry,—nothing taken for granted.

Examination of buried bodies, under suspicion of poisoning with arsenic.

If a body have been buried, and after some time disinterred on suspicion of the death of the person having been caused by arsenious acid, even although so much disintegration of parts and much decomposition have taken place, yet still the arsenious acid, or any arsenical poison, may be detected.

The best method of proceeding in such a case, is to boil the fluids found in the stomach, or in the cavity of the abdomen, in distilled water; then to allow the solution to cool, and, after straining and filtering, to introduce it into the apparatus for the formation of arseniuretted hydrogen gas as already demonstrated. A case is detailed by Dr. Ozaman in which the poison was detected in a body that had been buried for seven years; and a case occurred at Bristol, in 1835, in which the arsenious acid was discovered after the disinterment of a body which had been buried for many months.

The method of conducting the investigation in an actual case of suspected poisoning by arsenious acid will, I think, elucidate more clearly than can be done by any other means, the advantages of the proceedings best adapted for discovering the fact.

MM. Devergie, Crou, and Bardin, were ordered to examine the body of a person who was suspected of having died from poisoning by arsenious acid. They received for examination,—1, a packet labelled "powdered sugar;" 2, a packet inclosing some morsels of sugar; 3, a flask containing some coffee; 4, a flask containing the product of the boiling of a portion of the stomach of the body, which had been opened, in distilled water, and of some fluid which the organ contained; 5, a bottle containing the fluid contents of the cœcum; 6, a porcelain pot containing some morsels of cooked veal; 7, a large bottle containing sphacelated portions of the stomach and the cœcum, and a large portion of fluid. The contents of each of the packages and the vessels were separately examined in the following manner:—

1. First the packet marked "powdered sugar." Its contents were found to be a white powder weighing 5 drachms. A small portion of it was put upon hot charcoal: the vapours developed afforded no garlic odour. Another portion was put into ℥iv. of distilled water, one part of it floated, another rapidly sunk; it did not all dissolve; the deposit was white, and when repeatedly stirred up with a rod rapidly sunk to the bottom of the vessel. A third portion treated with tincture of iodine afforded no blue colour. The mixture, washed with cold distilled water, was decoloured, and the powder which remained was dissolved in boiling distilled water. Sulphuretted hydrogen precipitated this solution in yellow flocculi which had all the physical characters of sulphuret of arsenic.

The whole of the remainder of the powder was thrown upon a filter, and the deposit left on it was repeatedly washed with cold distilled water. The filter was then dried and weighed: on examining the powder left on it, small crystals of arsenious acid were discerned by means of a magnifying lens:

they weighed 12 grains. A small portion thrown upon hot charcoal developed the garlic odour. The rest of the powder was put into a tube, and sealed, as a specimen to be exhibited in court. The filter was next boiled in a weak solution of pure potassa, and the fluid, after being acidulated with hydrochloric acid, was precipitated by sulphuretted hydrogen, and a yellow sulphuret of arsenic obtained. The washings of the powder, and the solution of the sugar, were treated with sulphuretted hydrogen and hydrochloric acid, and yielded sulphuret of arsenic. This was added to that before obtained: the whole was washed and dissolved in liquor ammoniæ; the solution evaporated to dryness, and the residue decomposed by the black-flux, in a tube, and metallic arsenic obtained. This tube was also sealed up for the court. The solution of sugar from which the sulphuret of arsenic had been thus procured, was then evaporated, and a syrup obtained equivalent to 18 grains of crystallized sugar.

2. The contents of the packet labelled "lumps of sugar," were next examined. The whole, which weighed about ℥j, was dissolved in f℥iv. of distilled water, and completely dissolved without any residue. The solution was treated with sulphuretted hydrogen; no change took place, nor did the addition of hydrochloric acid produce any change.

3. On testing the contents of the flask, containing the coffee, with diluted hydrochloric acid, a vegeto-animal colouring matter was thrown down. The whole was then filtered and treated with sulphuretted hydrogen, but the fluid retained its transparency even after three days.

4. The flask containing a portion of the stomach which had been boiled in distilled water, and the fluid which it contained, was next examined. The fluid measured f℥iv., was of a lemon-yellow colour, and displayed a small deposit of the same colour. The whole was thrown upon a filter; the filtered fluid was turbid and coloured. The residue on the filter was acted upon by ammonia, and the solution which it produced evaporated to dryness, and treated in a tube with black flux: it merely left upon the sides of the tube a light black powder: and, when thrown upon burning charcoal, afforded a slight garlic colour. The filtered fluid was treated with sulphuretted hydrogen and hydrochloric acid, but no change of colour, nor any deposit, was found after twenty-four hours.

5. The fluid matters found in the cœcum were of a reddish-grey colour, and resembled fecal matter suspended in water, both in appearance and in odour. The whole was evaporated to dryness, then boiled in distilled water and filtered. The filtered fluid was next evaporated to dryness, the residue taken up with water and tested with sulphuretted hydrogen and hydrochloric acid. It gave no indication of sulphuret of arsenic.

6. The pieces of cooked veal, weighing about a pound, were submitted to long boiling in two pounds of distilled water, and liquor evaporated to dryness, then taken up by water, filtered and treated with sulphuretted hydrogen: no change was effected either in transparency or in colour. The pieces of boiled meat were next dried and carbonized in a crucible; the residue treated with nitric acid with the aid of heat; and the solution tested with ammonia in excess: no blue colour was produced; nor was any change caused by the hydrocyanide of potassium.

7. The portions of sphacelated stomach and cœum, and the alcohol in which they had been preserved, were lastly examined. The internal surface of the stomach was red on many spots, especially near the cardiac orifice. The mucous membrane was eroded, and the follicles were found red between; whilst many black patches, several lines in breadth, were spread over its surface. On examining the whole with a powerful magnifying glass, many angular points resembling grains of arsenious acid were perceived embedded in the mucous membrane. Four or five of them, raised on the point of a knife, were boiled in distilled water, and the fluid treated with sulphuretted hydrogen; a decided yellow precipitate of sulphuret of arsenic was procured. This precipitated and its fluid was preserved in a sealed tube. The stomach and the cœcum were then washed with much distilled water, and the washing mixed with the alcohol in which the parts had been preserved. On the whole remaining at rest for some time, a whitish powder precipitated, which was dried, and treated in a tube with black-flux. Metallic arsenic was obtained; and the tube sealed. The stomach and cœcum were then boiled several times in the fluid; which was then filtered and evaporated, and the residue taken up with distilled water, and treated with hydrochloric acid and sulphuretted hydrogen: a brownish precipitate was obtained. This was washed and dissolved in ammonia, the solution evaporated to dryness, and the residue treated with black-flux in a tube. Metallic arsenic was obtained, and the tube sealed. The substance of the organs themselves was next incinurated and treated with nitric acid, and ferrocyanide of potassium without any change being effected.

These experiments led to the following conclusions:—

1. That the packet marked "powdered sugar, was a mixture of arsenious acid and sugar.

2. That the morsels of sugar were really what they were stated to be.

3. That the coffee contained neither arsenious acid, nor any salts of copper.

4. That the flask containing portions of

the stomach boiled, and the fluid, afforded reason for thinking that its contents had been previously tested with sulphuretted hydrogen: for the precipitate could be accounted for on no other principle. That the deposit probably was sulphuret of arsenic; but the quantity was too small to allow of an accurate conclusion.

5. That the fluid obtained from the cœcum furnished no traces of arsenious acid.

6. That the cooked veal afforded neither trace of arsenious acid nor of salts of copper.

7. That the stomach supplied sufficient evidence of arsenious acid having been taken; consequently the experimenters were of opinion that the results of the experiments, the symptoms observed during life, and the lesions detected by the post mortem examination perfectedly coincided, and authorized them to assert, that the deceased had been poisoned by arsenious acid: and that no salt of copper had any influence in causing his death.

This report, gentlemen, which I offer to you as a model of the methodical manner in which such proceedings are to be conducted, shews, strikingly, in the time consumed in the investigation, the great advantage of Mr. Marsh's method of detecting arsenical poisons. Its chief advantage is the simple manner of conducting the process, and the little necessity of any chemical knowledge in carrying it on; that the residue obtained on the glass should be fairly demonstrated to be arsenic, and its oxide and acid can be readily affected by acting upon it with aqua regia, evaporating the solution to dryness, and touching it with a drop of a strong solution of nitrate of silver. If a brick red colour is produced, it is sufficient evidence of an arsenical salt.

LECTURES
ON
MATERIA MEDICA AND THERAPEUTICS,

NOW IN COURSE OF DELIVERY
AT THE
WINDMILL-STREET SCHOOL OF MEDICINE,
BY
GEORGE G. SIGMOND, M.D.

Lecture XVIII.

DIGITALIS:—*Darwin's eulogium thereon. Its external characters and name. Properties of the leaf. Its cultivation and preparation for use as a medicine. Composition of digitalis. Discovery of digitaline. Its properties. The infusion of digitalis. The tincture. The dose. Strength of the preparations; the tincture; the decoction; the powder. History of its employment as a remedial agent. Dr. Ratcliffe's comments on Salmon's Botanologia. Controversies on digitalis in the old Monthly Journal.*

GENTLEMEN:—The greater number of the inhabitants of this earth run carelessly through their ephemeral existence. Many of them look only "with brute unconscious gaze" at the objects by which they are surrounded; they are not capable of appreciating the value of those objects, of employing them for their own happiness, or of gratefully adoring the Hand that created them for their use with "such beauty and beneficence combined." To us, however, supremely blest by being permitted to be the humble instruments of comfort and of ease to our fellow beings, is unfolded a beauteous page, on which is written, in characters indelible, a language which speaks delight to ourselves, and power over the rest of the world, and which must also awaken in our minds feelings of gratitude, of devotion, and of awe.

I have had the pleasure of explaining to you the soothing powers, over the nervous system, of apparently most humble agents, the juices, the leaves, the roots of herbs, and I have now to solicit your attention to another of the same simple class, which exerts the most deadly influence on man, which seems to hold an enmity with the organs of his life, but which our predecessors have taught us to use for our benefit, and which experience has shown us, may be divested of its noxious qualities, and employed with safety and with certainty in the most fearful and serious sickness.

> Bolstered with down, amidst a thousand wants,
> Pale DROPSY rears his bloated form and pants;
> "Quench me, ye cool pellucid rills," he cries!
> Wets his parched tongue, and rolls his hollow eyes!
> Divine Hygeia, from the bending sky
> Descending, listens to his piercing cry,
> Assumes bright DIGITALIS' dress and air,
> Her ruby cheeks, white neck, and raven hair,
> Four youths protect her from the circling throng.
> And, like the nymph, the Goddess steps along.
> O'er him she waves her serpent-wreathed wand,
> Cheers with her voice, and raises with her hand,
> Warms, with rekindling bloom, his visage wan,
> And charms the shapeless monster into man!

Thus sweetly sang the poet whose tuneful verse attracted many a student to inquire into the system of LINNÆUS, and to become an enthusiast of "The Loves of the Plants." Nor is this description of one of the most attractive and conspicuous of our indigenous plants altogether at variance with the reality, and though its powers in the cure of dropsy are somewhat more fantastically portrayed than the dignity of science would indulge in, still it has as much of truth as it has of poetry; for, as I shall have occasion to show you, it has indeed been of great and important service, though liable to be much abused.

Digitalis is a biennial plant, growing in most of the counties of England, with the exception of Norfolk and Suffolk, where, upon the authority of Sir JAMES SMITH, it is seldom, if ever, visible. It grows in the neighbourhood of London, in most of the woods; it generally selects for itself a sandy or gravelly soil; is to be found on hedge-banks in uncultivated places, and, from its beauty and stately appearance, is often honoured with a situation in our flower gardens. About the month of June or July its elegant flowers are put forth, of a bright-reddish or purple colour. FUCHSIUS is the first author who speaks of it; he says, and this is about the year 1542, that as it has neither Greek nor Latin name, and as he can no longer permit so beautiful a flower to be nameless, he gives it the appellation of Digitalis, as a translation from the German "fingerhout," which signifies a covering for the fingers; the old English name was folks-glove, which we have corrupted into foxglove.

Mr. ROOTSEY, in a very interesting paper published in the "Transactions of the Medico-Botanical Society," on the medical plants mentioned by our great poet, SHAKSPEARE, whose love for these beautiful ornaments of nature is exhibited in so many exquisite passages, supposes this to be one of the flowers with which OPHELIA made her fantastic garland,

> Of crow flowers, nettles, daisies, and long purples
> That liberal shepherds give a grosser name,
> But our cold maids do dead men's fingers call them;

and he observes, "The name of foxglove, or folks-glove, finger-flower, or digitalis, and dogs' finger, as the plant is called in Wales, together with the magnificent spike of purple flowers borne by the digitalis purpurea, induce me to conjecture that it is alluded to by our illustrious poet as long purples." In almost all the languages of Europe it is either called digitalis, as in the French, Portuguese, and Spanish, or a name bespeaking its likeness to a glove; thus it is in Swedish fingerbor, in Dutch vingerhold, in Russian naperstock, and in Italian guantelli.

Digitalis is of the sexual class, didynamia, and it is to the four stamens DARWIN alludes, when he says, "four youths protect her." The order is angiospermia; and LINNÆUS placed it amongst the luridæ; JUSSIEU, amongst the scrophulariæ, which obtain their generic name from the resemblance that many of the roots of the species bear to scrophulous tumours, for which, indeed, at one time they were, when the doctrine of "signatures" was in fashion, applied as poultices; they very much approach the solaneæ, or nightshade tribe; indeed they are separated by a purely artificial distinction, for which I must refer you to BENTHAM upon the Scrophulariaceæ of India, an extract from which you will find in Professor LINDLEY'S "Natural System of Botany."

Many of the species of digitalis, such as the lutea, ferruginea, and grandiflora, are said to have properties very similar to the purpurea. This plant rises from a knotty and fibrous root, with a round, erect, downy stem, about four feet in height; its lower leaves are large, ovate, pointed on short-winged footstalks, and spreading upon the ground; the upper leaves are alternate, lanceolate; both kinds are downy, wrinkled, nearly crenate; the upper surface is of a beautiful green, the lower surface is much paler and more downy. The flowers, which are in general very numerous, are striking to the eye from their bright-reddish or purple colour; they are attached on short footstalks to the upper part of the stem, so as to permit their drooping, and they terminate the stem in a graceful pyramidal spike. The calyx is divided into five segments, of which the upper one is narrower than the other four; the corolla is monopetalous, bell-shaped, and has a hairy surface within, which is also spotted; it is about the size of the finger of a common sized glove; its general colour is a bright purple, with the tube white; the filaments are awl-shaped, are inserted into the base of the corolla, bent downwards, and they bear large, yellow, oval anthers deeply cloven: the germen is pointed, ovate; it has a simple style, with a bifid stigma, which remains shut up in the early portions of life, but when the flowers arrive at the age of puberty it opens. The capsule is ovate, with two valves, with double partition, which contain numerous small ferruginous, punctated seeds.

In the leaf of the digitalis resides the peculiar virtue by which the herb is distinguished, and great attention is necessary that at the proper season the leaves should be collected and dried. The herbalists in general prefer that which is the result of cultivation to that which is of natural growth. Shortly after the plant was brought before the medical profession as an important object in therapeutic knowledge, Dr. MACLEAN gave some valuable hints as to the best mode of growing and gathering it. He cultivated it in his own garden, and he observed that it vegetated there much better than when it grew wild. The leaves were of a greener hue, thicker, and more succulent, and as the weeds and other plants which surround it, under ordinary circumstances, were removed, they attained a greater degree of perfection, from their enjoying a greater supply of light, of air, and of nutriment from the earth. When the stalks are thick, long, and tall, with a full supply of large thick green leaves, the plant is in full health and vigour. About the month of June or July the leaves should be gathered, but the exact time is of little consequence provided they appear to be green and

healthy. They are either dried slowly in the shade or quickly in the sun, but they must not be alternately dried in the sun and shade, otherwise they lose their colour and their virtues, but the best method is that which the "London Dispensatory" observes is the one adopted by Mr. BATTLEY, which is to lay the leaves in thin layers in baskets of willow, stripped of its bark, in a drying-room kept quite dark. They there should be exposed to a temperature of 140° of Fahrenheit for six or eight hours. When the leaves begin to shrivel they should be turned, and the same temperature continued until they crumble readily in the hand.

Few vegetables require greater precaution in the preparation, for the strength and power of one of the most energetic medicines we possess must very much depend upon the care and watchfulness of the manipulator; the least drop of water will completely impair the property of the leaf, and any failure in attention to the degree of heat, and to the absence of the stimulus of light will lessen its medicinal effect. The stalk must be carefully removed, and pale-green leaves should be thrown away. When thus properly managed the leaves that are of a fine green colour should be placed in oil jars, perfectly dry, and free from every impurity; these vessels are to be kept in a dry, warm situation, closely covered. In this state they will remain for a considerable length of time, without undergoing the slightest change or decomposition. When required for immediate use no more should be reduced to powder, or infused, or digested in water, than is absolutely required, for frequent exposure to the influence of atmospheric air renders the powder an inert substance, and the long-continued maceration in water produces a solution very different from that which originally existed.

This plant yields up its virtues to cold or to warm alkohol, and to warm water. From the decoction, or infusion, salts of iron cause a blackish precipitation; nitrate of silver, a copious blackish violet; the subacetate of lead, one of a yellow colour; the nitric, hydrochloric, and sulphuric acids also produce precipitates, and alkohol added to the decoction gives it a sort of consistence almost gelatinous, most probably the result of the mucilage which is contained. It has undergone chemical investigation, and LEROYER, PANQUY, PLANIAVA, BRAULT, and POGGIALE, have, at different periods, examined it with great minuteness, and given us the result of their experiments; and an inaugural thesis, by Dr. WATSON WILDING, of Philadelphia, has received from the French chemists great praise for its minuteness, and evident carefulness. The "Journal de Pharmacie" contains some extracts from it; the experiments are abridged, but the general result appears to be that digitalis is composed of gallic acid, of mucilage, of a colouring matter (soluble in water, insoluble in alkohol or ether), of chyrophylla, of a sweetish matter, of a trace of fecula, of a volatile oil, of concrete floccid matter, of gluten, of fatty matter, of extractive matter, of ligneous or fibrous matter, and of a peculiar principle which is soluble in alcohol and in ether.

It is, however, to AUGUSTE LEROYER, apothecary at Geneva, that we are indebted for a knowledge of the active principle to which the name of *digitaline* has been assigned. He has obtained it in its separate state, and has made several experiments with it on animals. MM. BRAULT and POGGIALE have repeated the process pursued by him, and have obtained the same results, namely, a brown substance of extreme acridity and bitterness, but they consider it to be an extract formed of a large quantity of chyrophylla, of resin, of a thick matter, and of different salts of lime and of potash, a union of all of which substances they consider necessary to the action of digitalis, without affirming it to be a principle upon which it solely depends. LEROYER treated the substance he obtained in cold and in warm ether; both of these preparations had a yellowish hue, and were bitter; upon evaporation they yielded a resinous substance, intensely bitter, which, upon tasting, benumbed the tongue in a manner similar to aconite, or to the caladium seguinum of the West Indies. He dissolved a grain of this substance in a small quantity of water; he injected it into the abdomen of a rabbit, which was very speedily killed, without experiencing any convulsions, although that animal is susceptible of spasm upon the slightest irritation. A cat was killed in fifteen minutes, by half a grain injected into the veins; a grain and a half dissolved in an ounce of water was injected into the jugular vein of a dog, death took place in fifteen minutes. In all these instances the vital phenomena became gradually extinct, the animals all died as if falling asleep. Upon examination after death the arterial blood was found of a venous appearance, with very little tendency to coagulate; the cerebral mass had undergone no sensible alteration, but the sinuses of the brain were all gorged with blood.

There are two preparations of digitalis which are admitted into the Pharmacopœia of the London College; an infusion and a tincture.

The infusion is directed to be made from a drachm of foxglove leaves dried, a fluid ounce of the spirit of cinnamon, and a pint of distilled water; the leaves are to be macerated in the water for four hours in a vessel lightly covered, and strained; the spirit of cinnamon is then to be added: what the reason is that so large a quantity of water has in the present formula been substituted for the half pint of the last edition, I know not, but it makes, of course, a very material

alteration in the strength of the infusion. The former recipe, which is also followed by the Edinburgh College, is founded upon the formula of WITHERING, and has been very generally approved of by practitioners, and though others have been proposed by Dr. MACLEAN and many intelligent men, it has kept its ground until the present moment. As it has been the favourite form, and with good reason, for the administration of foxglove in dropsy, I think the change may fairly be considered objectionable.

The tincture is to be made of the leaves of foxglove, dried, four ounces, of proof spirit two pints, the maceration is to take place for fourteen days, and then to be strained. In this preparation you must likewise bear in mind that a change of strength from the last edition has taken place, for the pint contains twenty ounces now, though formerly it held but sixteen.

Any alteration in the strength of medicines is much to be regretted from the confusion that it produces, and likewise from the field that is left open for carelessness in dispensing. The dose of the tincture, under ordinary circumstances, has been as a commencement ten drops, and of the infusion about two drachms. I shall have occasion to show you that great attention is at all times demanded as to the nature of the disease, and the strength of your patient. Though precautions are always necessary in order to give, with due effect, every medicine which you are called upon to prescribe, I know none that more imperiously demands your calm and cool consideration than does a medicine possessing such extraordinary powers as digitalis; from want of due attention and a thorough knowledge of many most important points connected with the history of disease, it has been a source of much mischief.

It is a subject of much regret, that notwithstanding all that has been done to draw the attention of medical men to the necessity of having their preparations duly watched, and knowing that they are at all times of equal strength, even such an energetic medicine as digitalis should be uncertain in its operation from the want of common attention. Dr. CHRISTISON complains that the preparation of foxglove is unequal in strength, and what can better prove it than the assertion of Dr. WILLIAMS at a meeting of the *London Medical Society*, that a drunken butcher took two ounces of the tincture of digitalis, in two doses of an ounce each, in quick succession, without the slightest inconvenience ensuing, whilst Dr. CLUTTERBUCK, one of the most experienced men in this great metropolis, declared that his general practice was to give the medicine in doses of ten or fifteen drops, and was adverse to giving larger doses. The highly-esteemed Professor of the *Royal Institution*, BRANDE, relates a case in which an individual, who had been suffering from hydrothorax, or water in the chest, had been, for a very considerable length of time, in the habit of taking forty drops of the tincture of digitalis every night before he slept; he went into the country on a visit to a friend, and having forgotten to take his usual medicine with him, he was under the necessity of sending to the nearest medical man, an apothecary, for an ounce of the tincture, of which he took the dose to which he had been for a considerable length of time habituated: he found its effects were most violent upon him; indeed, before the morning, he died, actually exhausted by one of the marked effects of this herb, where it produces its deleterious influence, repeated faintings. Of course very particular inquiries were instituted relative to the quality and to the quantity of the tincture that he had, just previous to his death, taken, when it appeared that the leaves of the digitalis had been shaken out of the bottle in which the tincture was contained, in nearly a dry state, since an ounce of the tincture was, with much difficulty, squeezed out of them, so that the strength of the tincture was not only increased by long standing, but, most probably, had been very considerably augmented by the natural evaporation that had been going forward, so that the unfortunate patient had died of an intended remedy, instead of the disease.

The "Dublin Pharmacopœia" gives its formula for a decoction, to be made of a drachm of the dried foxglove leaves, water, as much as will admit of strained liquor, eight fluid ounces. Place the vessel over a gentle fire, and as soon as the liquor boils remove it, then digest for a quarter of an hour and strain, this has an advantage over the much-esteemed recipe given us by Dr. DARWIN, that by employing the dried leaves instead of the fresh leaves, as recommended by him, we are less likely to find the medicine vary, and we are not dependant upon the season of the year: his advice is to take of the fresh green leaves of foxglove four ounces, to boil from two pints of water to one pint, and to the strained fluid to add two ounces of vinous spirit; he found that a large spoonful of this, early in the morning, and repeated every hour till the patient had taken from three to eight or nine spoonfuls, or till sickness was induced, or some other unpleasant sensation, was a remedy in diseases to which I shall have more particularly to advert, as those which yield to foxglove.

The decoction is certainly liable to some objection, for the powers of digitalis are impaired by boiling; it, however, very often agrees with a patient better than any other preparation, from this very circumstance, and many individuals who could not bear the activity of its operation when administered in any form by which its concentrated strength is obtained, are capable of submitting to its

lessened action. Some stomachs are excessively alive to a very small dose, and others bear, without suffering the slightest inconvenience, very full doses, but no one should ever increase the dose from an idea that it loses somewhat of its efficacy by being continued for some time.

The powder of the herb has been sometimes a favourite with the profession, and the leaves have been very carefully dried and pulverised for use, but this mode of administration is now very generally abandoned, for in the diseases in which it might prove serviceable, given in a form easily acted upon, the stomach is observed to be incapable of performing its due function, and hence the powder adheres with the greatest tenacity to the coats of the stomach, and keeps up an irritation which is most distressing; there is a constant effort of the digestive organ to expel its contents; the nausea and efforts to vomit are most distressing; of this kind is a very instructive case narrated to us in the "Journal General de Medicine," by CHANTOURELLE; the powder remained for several days, teasing, annoying, and exciting the alimentary canal; the effects at last became quite dangerous, and the greatest alarm was felt. Its presence in the bowels was fully proved by its appearance in the dejections. Dr. WITHERING, however, was in the habit of recommending the dried leaves, and thought that two or three grains given twice in a day, in combination with some aromatic, might be found to answer all the effects required. Some practitioners have thought the bad effects which result from the powder would be completely obviated by making it into a pill, but the general feeling is certainly against this mode of employing it, and certainly my own observation has led me to the same opinion. I have two or three times known it given in powder, and the result has been much distress to the patient; and we fully know of what deep importance it is, in the greater number of diseases, to keep the stomach in good humour. So long as we find this to be its state we need not despair of the efficacy of our remedies; but when nausea and disrelish of every thing that can be proposed come on, we lose our opportunity of making the proper impression upon the malady. The experiments of ORFILA upon animals bring us to the conclusion that the powder of foxglove, its watery and resinous extracts, and its tincture, are to be regarded as energetic poisons in certain doses, that all these preparations begin by acting as emetics, that the powder occasions a local irritation which is capable of exciting an inflammation sufficiently intense, that the resinous extract is endowed with a greater poisonous property than is the watery extract, and that the watery extract is more powerful than the powder. The root of digitalis has been sometimes employed, but it is now generally laid aside, from the conviction that no uniform effect is to be obtained from it, and this arises from the circumstance of its being biennial.

Digitalis does not appear to have been classed by our ancient herbalists, GERARDE or PARKINSON, amongst the important indigenous plants; they seem to have had little idea of its utility, nor do they make any very strong allusion to its employment amongst the people: they, however, mention it in terms of commendation in epilepsy, and seem to think it not unworthy the notice of physicians. RAY is the first who speaks of it as a common medicine, and he states that in Somersetshire the rural classes make use of a decoction for those who labour under febrile diseases, and that they excite purgation, superpurgation, and vomitting, by its use.

The first account of its powers, at least before Dr. WITHERING, and the numerous advocates of its utility who followed him, and claimed to be considered as the benefactors of the human race, was undoubtedly by WILLIAM SALMON, who was never very highly estimated. Indeed, Dr. PULTENEY, when speaking of him, says, "it needs some apology to introduce the name of SALMON, well known as a multifarious writer, and author of numerous publications in physic, all of which have an empirical cast." But, though, as a botanical work, his "Herbal" is beneath all criticism, he has made a most valuable compilation; and, as his design was almost entirely to treat on medicinal herbs, I do not consider him so unworthy of our attention as to pass over his observations, when they are original. In general, he was a mere compiler; and certainly he ascribes, with very lavish freedom, extraordinary and numerous powers to almost every herb he describes. However, the following description of the virtues of digitalis, which are to be found in the "Botanologia," or "British Herbal," must not be passed by in silence, if we are to give to every discoverer a just meed of praise:—

"It is a specific which transcends all other vegetable medicaments for the cure of consumption, cleansing and healing after an admirable manner ulcers of the lungs. It opens the obstruction of all viscera, cleanses, carries off, or expels the excrements of the humors, by which means the daily nutriment may be conveyed to all the other parts of the body. The syrup of the rob, or juice of the herb and flowers, made with honey, may be given morning and night, four or five spoonfuls at a time, according to age or strength of the patient. It cures a phthysick or ulceration of the lungs, when all other medicines have failed, and the sick been esteemed past cure." He further says, "I have known it do wonders, and speak here from long experience. Persons in deep consumptions, and given over by all physicians,

have by the use of this syrup, or rob, been strangely recovered, and so perfectly restored as to grow fat again. I commend it as a secret, and it ought to be kept as a treasure." In his quaint style, he goes on to say, that deplorably wasted patients will thank him for this notice, "whilst they may have reason enough to curse even the memories of quacking blood-suckers, issue makers, and blister drawers." He says that the syrup ought chiefly or only to be made of the flowers.

This was about the year 1711. It afterwards seems that digitalis was altogether in disuse; and QUINCY, in his "English Dispensatory," merely names it, and says, "But although this is said to be both cathartic and emetic, the present practice takes no notice of it in either intention." So that the furious war which raged at one time as to the discovery of the effects on pulmonary disease of digitalis, might have been at once put an end to, by proving that it was almost a revival of an old practice. Dr. SHERWEN, of Enfield, in Middlesex, was the first who showed that the old adage, "there is nothing new under the sun," was exemplified, by SALMON'S "Botanologia," being the first depository of the virtues of digitalis.

I may here observe, that there is a curious literary anecdote connected with SALMON'S "Botanologia," which is well worth preserving. A library of medical books was advertised for sale by public auction, and among the lots was one that excited a great deal of curiosity amongst the profession, the "Botanologia" of SALMON, described as a "work of the ingenious and learned Dr. WILLIAM SALMON, with marginal annotations by Dr. RATCLIFFE." Now, as it was well known that "the great child of honour" and of fortune, Dr. RATCLIFFE, who, by one of the freaks and follies of the age, was esteemed the first physician of his time, had never written a single medical observation, nor had ever committed any knowledge to paper, save what his singular prescriptions might contain, all the collectors of rare objects were assembled, and great competition excited. The book brought an extraordinary price. When the purchaser came to examine his treasure, there could be no doubt of the authenticity of the writing; it was the great Doctor's autograph; and it proved to be in the doctor's genuine characteristic style; for the remarks on the margin were to this effect:—"This is the most cursed, stupid book that ever was written;" "ignorant blockhead," "booby," "jackass," &c. &c., and these were very liberally distributed wherever the page admitted of an observation in writing.

HEENRICK VAN BERGEN, when he published a work in German, an attempt towards a monograph of the Cinchona barks, gave a list of no less than 632 authors who had written upon the subject, and of 808 books and pamphlets that had been published, but this had been from the year 1639. The works, the pamphlets, and the papers which have appeared since Dr. WITHERING, about the year 1785, recalled the attention of the profession to digitalis, and the number of authors would not fall short of the catalogue which so much astonished the indefatigable German. The period at which Dr. WITHERING lived was a very extraordinary one in the annals of science in this country; it may be fairly called the first dawn of that beauteous morning which saw sound sense and reason establishing their empire over the minds of those who were devoted to the divine study of the healing art; for although there had been, here and there, a brilliant star in the horizon, a harbinger of the future light, there had been none of that devotion to inquiry which so strongly marked the period to which I allude. Periodical literature was in its infancy, the "Monthly Journal" was regarded as the great vehicle which communicated intelligence; the time at which it came out was looked forward to with the utmost anxiety; in its pages appeared the dogmas, the experience, of the leading men of the day; their battles were manfully fought in that depository of wisdom: there Dr. MACLEAN, Dr. MOSSMAN, Dr. FOWLER, Dr. DRAKE, Dr. KINGLAKE, and a vast number of writers whose names belong to medical history, contributed their quota to the general fund on this herb; and it is amusing to follow the war of words, from number to number; to find "inaccuracy of quotation," "misrepresentation from inadvertency or design," "conscious rectitude of intention, regardless of what petulance or abuse shall press forward," "regrets that the learned doctor should have fallen into such error," and expressions that prove how earnest were the combatants, how deeply they felt that they were before the tribunal of a profession beginning to be capable of appreciating talent. There is scarcely a volume of the old "Medical and Physical Journal," in its early day one of the best periodicals that ever appeared, that does not contain two or three papers on digitalis; some individuals had mounted a hobby, which, without regard to the lives of his majesty's subjects, they were riding to death, whilst others had the good sense to walk quietly in the beaten path, and wait until time and experience should establish certain truths. A mass of very singular evidence has, however, been brought forward, and the ardour of the inquirers has led to the collection of innumerable testimonies as to the value of digitalis, and to the cautions necessary for its use, which must form the subject of my next lecture.

LECTURES
ON THE
PHYSIOLOGY OF THE NERVOUS SYSTEM,

DELIVERED IN 1836, IN THE COLLEGE OF FRANCE.

By M. MAGENDIE.

Lecture XXII.

TASTE (*continued*):—*Examination of a dog, deceased accidentally during experiment. Lecturer's mode of examining the brain.—Unique case of nymphomania before puberty. Examination of the body. Opinions on the false membranes which occupy the seat of the cerebro-spinal fluid. Purulent matter in the cavity of the subarachnoid, conveyed there by imbibition. Normal state of the cerebellum in the present case. The seat of nymphomania. Case of a Pole, in whom the wind of a ball destroyed the functions of hearing, speech, and taste, but not of smell. Galvanic treatment. Seat of the disease.*

GENTLEMEN:—In my last lecture I told you that the organ of taste received three principal nerves from the brain, but that the lingual branch of the fifth nerve was the only one which, considering its mode of origin and distribution, could be considered as exercising an influence over the production of the sense of taste. As to the general sensibility of the tongue, that is derived from distinct filaments which that organ receives from the fifth pair. According, however, to the method which we follow, these considerations can only be regarded as so many simple assertions, until direct experiment on the living body shall have demonstrated their accuracy. To this method I shall now appeal, and endeavour to show you, experimentally, that the lingual branch of the fifth pair is the special nerve of the sense of taste, with which the hypoglossal and glossopharyngeal have no connection whatever.

Before entering more particularly on this subject, I shall devote a few minutes to the examination of the carcass of the dog on which I endeavoured, for the first time, to divide the glossopharyngeal nerve; the animal died suddenly, and, as you must remember, I then practised the section of the same nerve on its dead body. I shall first open the cavity of the cranium, to ascertain the cause of the animal's death; and this is evident at once: an effusion of blood has taken place on the surface of the brain. Let us now examine the internal parts. You may remark that, in dissecting the brain, I proceed after a method which differs from the one commonly pursued; I divide the cerebral mass directly from above downwards into two parts, instead of slicing it horizontally; and I find this method so convenient, that I propose adopting it in all the autopsies I shall have occasion to make for the future. This section shows at once that effusion of blood has also taken place between the striated bodies and optic thalami. I have also another digression to make, but on so interesting a subject in pathology, that I am sure you will excuse my deferring our experiments for a few minutes. I have here before me, on the table, the body of a young girl, who died in my wards at the *Hotel Dieu*, while labouring under nymphomania.

This is an extremely curious case,—perhaps unique in the history of medicine; at least I am unacquainted with any example of a female having been affected with this distressing disease before the period of puberty. This young child, scarcely 12 years of age, abandoned herself to the practice of masturbation, of which she was guilty several times in the course of the day, and that in the most open and undisguised manner. This child, of gentle and engaging disposition, and endowed with a considerable share of intelligence, was so powerfully influenced by the fatal passion which dominated, while it undermined, her existence, that she at length became an object of horror to her parents and friends, to whom she frequently detailed in the morning, and with the utmost frankness, the excesses committed during an agitated and imperfect sleep. The child was brought to the *Hotel Dieu*, where she soon died with all the symptoms of compression of the brain. Immediately on her arrival I ordered her to take some cold baths, hoping to calm the nervous system, and diminish the irritation of the genital organs. One or two baths only were administered when the little patient was seized with a species of hallucination, and an exaltation of the intellectual faculties, manifesting itself by an incessant loquacity. At the following visit the child answered rationally enough all the questions which were addressed to her, and I was unable to discover any of the symptoms which ordinarily accompany acute inflammation of the brain or of its membranes. I ordered sinapisms to the feet. On the following day, however, I found the child labouring under the symptoms of compression of the brain, which gradually became more profound, and finally terminated in coma and death.

The *autopsy* was commenced 48 hours after death, and it required but a very superficial examination to show how closely connected the nervous system was with the disordered phenomena, in the midst of which the patient's life terminated. The first thing done was to expose the anterior surface of the spinal marrow, and collect with care the cerebro spinal fluid; the quantity of this latter obtained amounted to about two or three drachms, which you see here. Instead

of being clear and transparent, as it should be, and as you have seen it when extracted from a healthy animal, the fluid resembles an exhalation of serum, and is of a dull yellowish colour. You know, from what has been already said at an early part of the course, how profoundly the functions are deranged by any remarkable modification of the cephalo rachidian fluid, which is sometimes found not only altered in colour, but more or less deviating from its normal degree of fluidity. Here, then, the alteration in the colour of the cerebro spinal fluid puts us on the trace of the cause of this child's death, which evidently must be the same that produced the alteration of the fluid; and this leads us to examine the state of the cerebro-spinal axis itself, and of the membranes enveloping it. But first let us determine the condition of the fluid in the various parts of the cranium and vertebral canal.

[Here M. MAGENDIE directed the attention of the pupils to a layer of puriform liquid, mixed with albuminous flocci, which extended over the whole surface of the spinal marrow, and was contained between the arachnoid and pia mater.]

When I remove (continued the Professor) the fibrous membrane, you may observe how the arachnoid is elevated at several points by the effusion of fluid beneath it; the brilliancy and smoothness of the surface sufficiently indicate that the effused matter lies beneath the arachnoid, and, consequently, occupies the seat of the cerebro-spinal fluid. Most physicians would regard the pathological changes now before us as simply an effect of arachnitis, but for my part I see an alteration, a degeneration, of the cerebro-spinal fluid, produced by some special lesion of the pia mater; the disease probably commenced by an obstacle to the venous circulation in that membrane, which was soon followed by alterations of its normal secretion, and consequent derangement of the functions of the whole nervous system.

A physician, who has devoted a good deal of attention to diseases of the brain as connected with mental derangement, lately published a memoir on the false membranes which, according to him, are formed between the two free surfaces of the arachnoid, or, in other words, within the great cavity of that membrane. This is in opposition to what you have just seen in the case before us, but I do not hesitate to say, that the author of the memoir alluded to has fallen into an error; he has mistaken, altogether, the seat of these false membranes, which, like purulent effusion, transudation of serum, &c., almost invariably exist in the sub-arachnoid cavity, *i. e.* between the arachnoid and pia mater. Indeed, many writers, and especially the older ones, fall into the same error, which depends on want of attent more than anything else, on the part of th who make autopsies; however, it must confessed that in some cases it is difficult determine the precise seat of the lesi or the nature of the change which the flu has undergone. I regard these false membranes, for the most part, as depending on a change in the consistency of the cerebro-spinal fluid, and so far we advance a step beyond modern pathologists: inflammation is their resource, but it is frequently insufficient to explain the cause of death; while, on the contrary, I have demonstrated, by a series of experiments which you have all witnessed, that any notable alteration in the physical properties of the cerebro-spinal fluid is followed by a profound disturbance of the functions of the nervous system, and generally terminates in death.

Look now at the state of the pia mater, and observe how the injected vessels form a net-work distinguishable underneath the arachnoid, for let me impress you with the idea that in all these cases the alteration occupies the subarachnoid cavity, and not the free, smooth surface of that membrane. I have now exposed, in all directions, the great cavity of the arachnoid, and you see that it contains a quantity of purulent-looking matter: this, however, is not produced by the serous surface of the arachnoid; the latter is a tissue enjoying a very high degree of permeability, and the effused fluid you see here has made its way by imbibition from the cellular membrane lining the cerebral anfractuosities. The osseous envelop of the brain does not present any particularity worthy of notice; however, the cavity on the left side seems somewhat more developed than that of the right side. The region of the cerebellum is but moderately developed, a fact which is in contradiction of the doctrine of GALL, who placed, as you know, the seat of amativeness in that organ; now, the present subject, affected with this passion or instinct in a very high degree, should have presented a corresponding development in that part of the nervous system in which GALL supposed the instinct to reside. The only remarkable circumstance connected with this portion of the head is the excessive thickness of the skull where it covers the cerebellum. I am far from wishing to deny the possibility of any relation existing between the cerebellum and generative system, but, on the other hand, I cannot prevent myself from thinking that such relation is anything but constant when I find in so many cases high irritation of the genital apparatus coinciding with atrophy or more or less destruction of the cerebellum. The back part of the brain, then, is, as I said, but slightly developed in the present case: on the contrary, the whole mass of the cerebrum presents a greater volume than we usually find at this age. The same purulent effusion,

already noticed, may be observed on the superior and inferior surfaces of the cerebellum; the cerebral pulp itself is of good consistency, and much injected with blood; it is probable that we shall find more or less effusion of serum in the lateral ventricles. I have now exposed the central parts of the cerebrum; the ventricles contain some clear fluid, but in small quantity.

Let us now direct our attention to the state of the genital organs. The external parts are red and injected: on separating the external labia the hymen appears in a state of perfect integrity, a circumstance which is excessively curious when we remember the practices to which this child constantly abandoned herself. The clitoris is very small, scarcely developed; it does not present anything worthy of notice; the vagina appears normal, without any marks of irritation, injection, &c. On arriving at the uterus we find that instead of being developed it is actually smaller in dimensions than the organ usually is at the age of 15. The neck of the uterus does not present the least prominence. The only parts of the reproductive system which exhibit any deviation from the normal state are the ovaries. Those bodies are much more developed than they should be, and, what is very remarkable, some of the vessels of GRAEFF can be distinguished with the utmost facility; here is one that is highly developed. You know that these vesicles are considered as a proof that puberty has arrived, but this child was far from affording external signs of puberty. The conformation of the bladder and rectum presents nothing extraordinary.

Here we may stop for a moment to ask ourselves, did the existence of the nymphomania depend on the development of the ovaries, or the presence of the vesicles just alluded to? This terrible disease has occupied the attention of several writers, who have put forward a variety of theories, and, in fact, what is more easily made than a theory, provided you are not asked to furnish proofs of what is advanced: thus some authors place the seat of nymphomania in the uterus, others in the clitoris, others again in the ovaries; finally, others place it in the cerebellum. For my own part, without presuming to decide a question which is still involved in obscurity, I am inclined to connect the nymphomania of the present case with an abnormal development of the ovaries, and with the presence of vesicles in those bodies. However, nothing certain can be concluded from a single case: if I have occupied so much of your time with its details, it is with the hope that at some future time it may serve to throw light on a disputed question in physiology.

I shall now take the liberty of shewing you a case which is more immediately connected with our subject. Here is a young Pole who was knocked down by what is vulgarly called "the wind" of a cannon-ball, during one of the numerous combats in which he was engaged for the independence of his native land. The ball which affected him killed two of his friends at his side. The young man rose up from the field immediately after the accident; at first he thought nothing was the matter, but in a few seconds he perceived that he was completely deaf, and unable to hear the musket shots fired along side of him. The power of vision was troubled only for a short time, but he had entirely lost the faculty of speech, and that of taste; yet, strange enough, the sense of smell remained intact. The lesions just described have continued with little modification up to the arrival of the young soldier at Paris. I have just made an experiment which demonstrates that the special sensibility of the palate and tongue no longer exist: I placed some mustard on the anterior part of the tongue, but the patient remained unconscious of its presence until the mustard descended as far back as the pharynx and top of the œsophagus. The sensibility of the integuments of the head and face is limited on either side by the sterno cleido mastoid muscles. The muscles which act during deglutition, enjoy their full force; hence we cannot admit any affection of the glossopharyngeal nerve. The paralyzed state of the tongue, the impossibility of communicating to it any motion from behind forwards, demonstrates a loss of power in the genioglossal muscles, and hence the ninth pair of nerves also participates in the lesion. By analyzing, then, the symptoms under which this unfortunate young man suffers, we arrive at the diagnostic of a lesion of the fifth pair of nerves, giving rise to all the phenomena connected with loss of sensibility; moreover the eighth pair is paralyzed on both sides, together with a portion of the ninth pair.

Here we have a practical illustration of the utility of experimental physiology. A correct knowledge of the connection existing between functions and organs, leads at once to a knowledge at least of the seat of disease, if not of its nature. In the present case the lesion occupies the three nerves just mentioned, and it is to them that a rational method of treatment must be addressed. I commenced by trying the galvano-puncture; I introduced a platina-needle through some of the filaments of the supraorbital nerve, and a second into the superior maxillary branch of the fifth, but this produced such strong convulsive movements of the eye-ball, that I was forced to desist. I shall, however, repeat the trial again. The same means also determined convulsive movements in the muscles of the face and tongue, but without any permanent benefit; the latter organ still lies motionless in the interior of the mouth.

We are now inclined to ask, what portion

of the central nervous system is more immediately affected? for we cannot suppose that the same accident injured separately the fifth, eighth, and ninth nerves: the lesion evidently occupies the cerebro spinal axis, and, we have every reason for thinking, that part of the medulla oblongata and pores from which the nerves mentioned above, arise. The cannon-ball probably passed obliquely along the back of the head and neck, without injuring the integuments, but merely producing one of those concussions which are frequently mentioned in the annals of military surgery. I propose continuing the use of galvanism, and when the patient returns, in fifteen or twenty days, I trust we shall have a more favourable account to give of him.

Time will not permit me to enter into any details on this curious case, from which, however, you are now sufficiently advanced to draw some conclusions for yourselves: I shall therefore terminate the lecture by reminding you, how absolutely necessary it is for the physician to possess correct anatomical and physiological ideas, if he aim at understanding the various lesions which the nervous system may present to him, and is desirous of really advancing the science of medicine, instead of building up theories which never can produce, as they never have produced, any solid advantage.

CLINICAL LECTURES AND REMARKS,

DELIVERED ON

DISEASES OF THE SKIN, VENEREAL DISEASES, AND *SURGICAL CASES*,

AT THE

SKIN INFIRMARY, AND AT THE JERVIS-STREET HOSPITAL, DUBLIN.

By Dr. WALLACE,

SURGEON TO THOSE INSTITUTIONS.

Reports of the third and last period of the case of M. D. Iritis.—Remarks.—*The connection of iritis with the scaly form of venereal eruption. Existing erroneous views on this subject. Difference between syphilitic and idiopathic iritis. Error in supposing that the deposition of lymph is a pathognomonic symptom of syphylitic iritis. On the comparative power of nitrous acid, of the hydriodate of potash, and of mercury, in the mild forms of exanthematic syphilis. Use of nitrate of silver as an application to gums ulcerated by salivation.—Conclusion.*

Gentlemen:—I shall now read to you the reports of the third and last period of the case of M. D.—(*See* Lancet, page 428.) This period commenced on the

"*95th day.* The inflammation of the right eye, noticed on the 90th day, is increased. There is a preternatural vascularity of both the conjunctiva and sclerotica, particularly at the circumference of the cornea. The lids are a little tumid, the pupil dilated, and the iris slightly green. There is intolerance of light, and considerable lachrymation, particularly at night, when she looks at a burning candle. The air also pains her eye, but she has no pain in her head. She says, that when her eye first became inflamed it was very itchy. She has been living for some days in a cellar, the walls of which are very damp. From this she supposes she got cold, and that hence her eye became inflamed.

A livid red patch, the size of a large pea, having rather a deep root, has formed on the outside of her right leg. She remarks that it was burning and itchy when it commenced, like the spot formerly on her cheek. She says her throat is "as well as ever,"—that she does not feel it sore. It looks, however, red, and a little whitish. She also says she feels no soreness about the anus. The fissure there is apparently healed, and the diseased patches on the pudenda are less prominent.

"*96th day.* She considers her eye worse, and its vascularity is increased. The colour of the iris is deeper. The cornea appears clear, and the pupil not affected. Habeat. Foment. flor. an. nob., et Mist: purgantem. Omit. Mist. Hyd. Pot.

"*98th day.* The pupil is more dilated than that of the sound eye, and is oval from above, downwards. The vascularity of the eye seems increased, and there is a great flow of water to it; yet she considers it better, or less sore. The other symptoms as before.

"*100th day.* The inflammation of the eye, seems unaltered, the iris is perhaps a little more green. She says the pain is not great, except when she looks at a candle.

"*101st day.* Her eye is more inflamed; the lids more tumid or œdematous; the iris more green; and the pupil slightly irregular and obscured. Its edge is turned forwards. She has great intolerance of candle light, but no pain of her head. She says there is great discharge of water from her eye, particularly at night, that she is sorer "below," that she has been lately "indisposed." The pudenda do not appear so well as they have been; and a raised par-boiled looking patch has formed near the anus.

"*103rd day.* The eye is not improved. The edge of the pupil seems thicker. Her throat is not better. The anus and pudenda are worse. She had pain in her forehead and profuse lachrymation last night. She spontaneously remarks that she has become sore below in consequence of having omitted her "old medicine," (the Hyd. Pot.)

"*106th day.* The iris appears, perhaps, more green, and the pupil a little more irregular. The eye looks glassy and its red-

ness is scarcely altered. She considers it better. On the last day, noticed an undefined scaly stain on her forehead, between her eye-brows. It is more strongly marked to-day.

"108*th day*. Pupil more irregular, iris more green, vascularity increased. There is great lachrymation. The pudenda, &c., are not improved. Habeat. Mixt. Hyd. Pot.

"110*th day*. The iris is more green. The vascularity of the organ appears as before. She thinks that the vision is improved, and that she is better "below," since she commenced her last medicine (the Hyd. Pot.), which she says made her discharge much water from her mouth and nose, and caused a soreness in her throat. The diseased appearance in her throat is more extensive, and there are several newly-formed scaly spots on her face.

"113*th day*. She considers herself a great deal better, yet to me there appears scarcely any alteration in the eye, pudenda, or anus. Numerous stains, or spots of a red brown colour, are observed scattered over her arms.

"117*th day*. She says her eye is stronger since yesterday; and that it scarcely watered last night. To my observation it is not worse. The pudenda and anus appear better. She says her throat is not sore. The extent of the diseased patches is increased. Their surfaces are whitish, and their circumference is red. The scaly patches continue on her face.

"121*st day*. Her eye is very considerably improved. The redness is decreased. The iris has recovered its natural colour. The pupil is less irregular, and now more contracted than that of the other eye. She says she is better "below." A number of the spots on her arms, the size of flea bites, have desquamated, and become of a more brown colour. She remarks of herself, that her last bottle had a stronger taste, and was of more use to her than any of the preceding ones.

"125*th day*. Her eye seems better; but it is still preternaturally vascular, and the pupil rather more contracted. Some of the spots on her arms are scaly or scruffy, and others are smooth and shining. They have increased in number. The margins of the diseased patches in her throat are raised and red, and the surfaces are still whitish or lymph-like. Their extent is increased.

"127*th day*. The vascularity of the eye has decreased. The pupil is still more contracted, and is irregular. Other symptoms as before.

"130*th day*. She says she is better, yet all the symptoms appear but little altered.

"133*rd day*. Her eye looks better, and her throat paler. The spots on her skin are fading. The pudenda and anus not worse.

"135*th day*. The state of the pudenda and anus have deteriorated. Her eye continues better. The spots on her arms are also improved. There is one on her left cheek, which has a tumid base.

"138*th day*. Complains of soreness "below," and of weakness of her eyes, yet her symptoms do not appear much worse. To omit the hydriodate of potash.

"142*nd day*. Her eye seems well, and she says that it is so. The spots on her face and arms are less marked. The state of the anus and pudenda is scarcely altered. The diseased patches in her throat are extending at their circumference, and becoming better in their centre. She seems discontented and dissatisfied. To have, three times daily, two of the

Calomel and Tartar Emetic pills.

"146*th day*. Has now taken twelve pills. Her mouth is sore. Her pulse is above 100, small and weak. She looks pale, and has great thirst. She says that she is better "below." Yet, the parts do not appear better. Omit. pil. Cal.

"150*th day*. The gums are red, and ulcerated along the crown of the teeth. Her throat is red, but there is no appearance of specific disease. The hardness of the basis of the patches on the pudenda is diminished, and she considers herself much better there. The nitrate of silver, pointed, was applied to the ulcerated edge of her gums, and purgative medicine ordered.

"151*st day*. She remarks that the application made to her gums was of great use, and she considers all her symptoms better.

"158*th day*. The gums are still a little sore, although she has not taken any medicine for a week. There exists but a very trifling degree of redness in her throat, but a fissure is observable on each tonsil. The appearances "below," are better, and the spots on her skin have become paler in their centre. Rept. pil. Cal.

"161*st day*. Her mouth is again affected. Her bowels are confined. She looks pale and dejected. Pulse upwards of 98. Habeat. Ol. Ric. q. s.

"166*th day*. She has taken thirty-five pills in all, and her mouth is again sore. Pulse upwards of 100, small and wiry. She says she has no appetite, and would wish to remain all day in bed. The isthmus faucium is still red; the diseased patches on the pudenda and round the anus are shrunk and closed in. She says that she is much better "below," and that all hardness is nearly away. Omit. pil. Cal.

"174*th day*. The pudenda are healed, but there is still some hardness in one part. The anus is nearly healed. Her throat is not, she says, sore; nor does it look sore. Her mouth is nearly well. Rep. pil. Cal.

After this period a mild mercurial action was kept up until the 195th day, when she was discharged, apparently well of all complaints. At this time she considered herself ten weeks pregnant. Such was the conclusion of the interesting case of M. D.

Remarks.

What remarks do the history of its third period call for? The principal feature in this period was the existence of iritis; and here you have a proof that iritis occurs in conjunction with the scaly form of syphylitic eruption. Indeed, this conjunction is so frequent, that I know not how it could ever have been denied. You have yourselves seen many examples of it. Remember the recent case of the woman Fetherston. Here is her portrait, and a very characteristic one it is. You observe how well the appearances of the eye are delineated, as also of the scaly patches on her cheeks and forehead. She had condylomata on the labia pudenda.

It is very difficult, if not impossible, to distinguish by appearances, the syphilitic from that which is called the idiopathic iritis. I do not think they can, in general, be distinguished from each other, unless by the history of the case, and the nature of the accompanying symptoms. It has been said, by some writers (of limited experience, I presume, and whose minds were too much disposed to generalize), that nodules of lymph deposited on the surface of the iris, were always to be observed in the venereal, but not in the idiopathic iritis. This is, however, a great error, as the present case, and others, which you have seen, demonstrate.

It is highly important to remember the influence of the remedies employed, as well in the case of M. D. as in that of P. D. Both cases were treated upon the same general plan, and the results were in both pretty much the same. Nitrous acid, the hydriodate of potash, and mercury, were all employed, and each for a sufficient length of time to enable us to estimate its respective influence. To sum up, in a few words, the general conclusions at which I have arrived upon this point, and which I think you will admit to be correct,

1st. Nitrous acid exercises little, if any, effect over this form of disease. Should it be said that although the symptoms progressed while the patients were under the action of this remedy, yet we have no right to infer that it was without any influence, inasmuch as if it had not been employed the disease might have produced greater ravages than those which occurred; to that I would reply, that I have seen this form of disease, uninfluenced by treatment, exist for an equally long time without making a greater progress, or inducing a more serious state, than that which we witnessed while these patients were taking the nitrous acid.

2nd. The influence of the hydriodate of potash was highly remarkable and similar in both cases. It not only controlled the symptoms, but caused, to a certain extent, their rapid disappearance. There were some, however, scarcely influenced by it. Of this kind were the condylomata or excrescences which existed in P. D. in the angle between his scrotum and thigh, as well as at the anus. But, on the other hand, it in a great measure removed the same description of symptoms in M. D. In both cases we observed that when the symptoms had ameliorated to a certain extent, they became stationary, and although the salt was continued it seemed no longer to have much effect. On more occasions than one, fresh symptoms even made their appearance, while the patient's system was under the full influence of the remedy. It was, for example, under such circumstances, that the iritis occurred in M. D. But it is worthy of note, that, there seemed to be some cold caught, or some irregularity in the mode of living, whenever any of the symptoms deteriorated; or, whenever any new ones appeared while the patient was under the action of the hydriodate. This is analagous to what is frequently observed when mercury is employed. Thus, iritis and other venereal symptoms often occur while the patient is under mercurial action. Such cases do not, however, argue any deficiency of power in the remedy when properly administered. They only argue that such remedies have a greater number of modes of action than those suited to the removal of the venereal disease, and that some of these modes of action, when produced, rather promote and complicate the symptoms of syphilis, than lead to their removal. It also happens, with respect to the hydriodate, as in respect to mercury, that if its employment be suspended, after it has lost its power of controlling the venereal disease, and be, after a time, resumed, it will be found again to exercise its original powers, and to remove the symptoms over which it seemed, a short time before, to have no influence. Thus it was, that although M. D. was attacked with iritis while taking the hydriodate, we found, that, having omitted for some time, and subsequently resumed its employment, it then exercised a decidedly beneficial influence on the iritis. It seemed, in fact, to remove it.

3rd. The result of these two cases leaves no doubt of the greater comparative value of mercury in their treatment, than of either of the other remedies. Without its assistance there was little prospect of bringing matters to a conclusion in a reasonable time. Nevertheless, from my knowledge of other cases, I feel certain that by the continued use of the hydriodate, all the symptoms would have been ultimately subdued. The conclusion, therefore, at which we arrive, is, that in the treatment of these sort of cases, mercury is to be preferred, unless there is some objection to its use; and in that event, we have in the hydriodate of potash a remedy to which we may have recourse with the ex-

pectation of obtaining from its use very valuable assistance. We shall hereafter consider its action over the phagedenic varieties of exanthematic syphilis, and I shall then have numerous opportunities of demonstrating to you, by a review of the cases which you have seen, its claims to be considered as a heroic remedy.

Before concluding, let me request of you to bear in mind the advantages which resulted from the application of the nitrate of silver to the gums of M. D. while she was labouring under a severe salivation. This is a practice which you should uniformly adopt whenever a patient is experiencing distress from the action of mercury on the mouth. From the period at which I first introduced this remedy in such cases, to the present moment, I have never been disappointed, in obtaining from it the most decided advantage. Employ it, and you will be surprised at the comfort it affords your patient. Point your caustic sharply, and run the point over the ulcerated gums. It gives scarcely any pain.

To recapitulate the objects which I have had in view in the last four lectures. They have all been confined to the mild forms of exanthematic syphilis. In the first, I made you acquainted with the symptoms of the primary form of this disease, particularly as it occurs on the inner surface of the prepuce, and with the remarkably beneficial effects of mercury on it. In the second, I traced the general character of the constitutional symptoms which this form of primary disease presents, and the comparative influence of three different remedies on them. In the third and fourth lectures the nature of the constitutional symptoms, and their proper mode of treatment, were further illustrated, as well as several of the laws which regulate the propagation of the venereal poison, and, among others, the power which the matter of the exanthematic primary ulcer possesses of producing an analagous ulcer in another individual. Although I have so long dwelt on this form of syphilis, the subject is far from being exhausted. We have still a rich store of facts to investigate, and shall proceed with the consideration of some of them when we next meet.

DR. ELLIOTSON ON THE

PHRENOLOGICAL DEVELOPMENTS OF GREENACRE, THE MURDERER.

To the Editor of THE LANCET.

SIR:—You have deserved so well of all phrenologists, by publishing the entire courses of Dr. Spurzheim's and Dr. Broussais's lectures, by frequently reporting the meetings of the *Phrenological Society*, by occasionally printing its papers at full length, and by opening your pages at all times to the science, not only of late, but many years back, when its supporters were by *thousands* less numerous than they are at present,* that I have great pleasure in forwarding to you the following account of the head of Greenacre:—

I saw him once in prison, by an order from some of the authorities, but could make no examination of his head. Callipers I did not think of taking with me, nor did I request him to allow me to feel his head, or even speak to him; but, as he complained of headach to Mr. Macmurdo, the medical attendant, that gentleman, who was present, very obligingly requested me to feel if his head was hot, in order to give me an opportunity of examining it. I placed my fingers on the lower part of his forehead, and at the lower part of the back of his head, for a single moment, but desisted from anything more, because I fancied that he looked suspicious, and I was unwilling to hurt his feelings. His head was covered with abundance of hair, which reached low down on his forehead, so that I was unable to estimate his development by the eye. I had no conception that it was what the cast proves it to have been. The cast was taken as soon as he was cut down, and in the presence of many medical gentlemen. It is in vain to say that phrenologists make out what they please of a head, when they know a man's character. There is the cast, accessible to every body; and phrenological busts and plates are in every house. The cast may be examined, side by side, with these; and its development is so striking, that persons previously unacquainted with phrenology may perceive, with perfect

* Those who would know what progress the conviction of the truth of Phrenology has made, should read Mr. Hewit Watson's "Statistics of Phrenology," 1836. The first French government has just commissioned the navigator, Dumont Durville, to make a voyage round the world, with two corvettes, the *Astrolabe* and *Zélée*, accompanied by eighty men versed in different sciences, and one of them is M. Dumoutier, who is expressly commissioned to make phrenological observations.

ease, what, upon the principles of the science, the character of the individual must have been.

The whole head is rather below the average size; for, although many parts are very large, many more are very small.

The large parts are those in which Gall shows that the qualities reside which are common in great vigour to brutes as well as men. The small parts are those in which those qualities reside which are the noble characteristics of our nature.

The LARGE parts are,—the lower of the front,—the lower of the sides,—and the posterior.

The SMALL parts are,—the higher of the front,—and the higher of the sides;—and the sides extend to the summit, as this is not flat and elevated, but a ridge.

The organs of the LARGE parts are,—

In front.

The sense of things by which we take cognizance of individual objects.
Sense of places.
Sense of persons.
Constructiveness.
Language.

At the sides.

Alimentativeness (the desire of food).
The love of property.
The instinct to destroy.
Cunning.—*All very large.*

At the back.

Courage.
The instinct of Generation.
The love of offspring.
Attachment.
Self-esteem.
Love of fame (vanity).

At the summit,

Firmness, and, especially,
Veneration, *are also large.*

These constituted his positive organization.

The organs of the SMALL parts are,—
Causality.
Comparison, which two are the highest intellectual powers.
Wit.
Poetic talent.
Benevolence and Conscientiousness.—*All very small.*
Cautiousness.
The sense of colour.
Of music.
Of time.
Of number.
Imitation.
Disposition to the marvellous.

If those are right who contend for an organ of Hope, that also is small; and what some contend is the organ of Order, is moderate.

These constituted his negative organization.

Gall divides men into six different classes, in regard to the moral and intellectual faculties:—

"In the *first* class, the qualities and faculties which are the most elevated, and are peculiar to man, are completely developed, while the organs of the animal qualities and faculties have but a feeble degree of development and activity.

"In the *second* class, the organs of the animal faculties have but a feeble degree of development and activity, while the organs of the faculties and qualities which are pe-

culiar to man are but little developed, and but little active.

"In the *third* class, &c. &c.

"When the superior qualities and faculties which are more peculiar to the human species much exceed the inferior, the man will prevail over the animal. The internal movements, and all the conduct of these men, are conformable with reason, justice, and morality. To judge equitably of the weaknesses of others, to generously pardon offences; to tolerate, with indulgence, the errors of their minds; to act with integrity; always to labour for the general good, sacrificing their own interests; always to render homage to truth with a wise intrepidity; always to be above ingratitude and persecution; always to ascend from effect to cause; and thus always to shelter themselves from prejudice and superstition, &c.: this is the natural tendency of these men, these models, these benefactors of our race.

"The contrary is the case with those whose organs of the animal qualities and faculties have a very considerable development and activity, while the organs of the superior faculties have but little development and activity. In these all is subjected to sensuality and error. The animal impulses are numerous and violent, and defeat is the more to be apprehended, in proportion as the superior faculties and external aid are the weaker. If, unhappily, the prevailing inclinations are of the number of those the excessive activity of which destroys social order, will the philosophic judge be astonished at these men too frequently becoming the victims of their organization?"*

In the first descriptions, Gall accurately portrays his own organization and character;

in the second, as accurately such a being as Greenacre. Let any one contemplate the casts of the two, and let him look back upon the lives of the two, and consider whether phrenology is not deserving of serious examination.

Greenacre's head is so truly horrid, that I can believe every thing which has been asserted of him.

I have the honour to be, Sir, your obedient servant,

JOHN ELLIOTSON.

37, Conduit-street.
May 24th, 1837.

* "*Sur les Fonctions du Cerveau:*" tome 1, p. 320, *et seq.* No one can have a full conception of the splendour of phrenology and the solidity of its foundations, nor of the majesty of Gall's intellect and character, who has not studied *this*, or the *large* work of Gall. Yet most persons in this country have not read either, but have derived their ideas of phrenology from works containing much unsatisfactory speculation, instead of pure induction, and produced by minds very far below that of the great discoverer. Those who read Gall's works will be astonished at the absurd opinions entertained by Esquirol, Richerand, Serres, Tiedemann, Pinel, Fodéré, Rudolphi, &c. &c., and the power with which Gall refutes them. I am happy to say that an English translation of the octavo edition has just arrived from America.

SUCCESSFUL TREATMENT OF

DIVIDED INTESTINE, BY SUTURE, ON LEMBERT'S PLAN.

IN a late Number we gave an account of the method of treatment employed by M. JOBERT in wounds of the intestinal canal, accompanied by a case in which the suture which is recommended by that surgeon, was had recourse to with the best effects. The following observation, by Professor DIEFFENBACH, of Berlin, confirms, in great part, the views of M. JOBERT, and proves that as the science of surgery advances, various accidents, before considered to be incurable, lose the formidable character attached to them, and cease to be necessarily mortal.

Case.—A man, fifty years of age, was affected with strangulated crural hernia for fifteen days, when M. Dieffenbach was called to his aid. Various attempts at reduction, but without success, had been made by other surgeons, and the length of time which had elapsed since the first appearance of symptoms of strangulation, together with the inflamed appearance of the integuments, rendered it probable that the strangulated parts had sloughed, and given rise to an effusion of fæcal matter. The state of the patient indicated that he had scarcely twelve hours to live; the only chance of saving him consisted in a bold operation, to which he at length consented.

An incision, about two inches and a half in length, was made along the centre of the tumour; the cellular tissue was lardaceous,

and adherent to the external surface of the sac. When the latter was opened, a quantity of fœtid liquid, mixed with excrementitious matter, and fragments of mortified intestine, came away. The fold of intestine contained in the sac presented, near its upper part, an opening sufficiently large to admit the thumb. The parts exposed were now thoroughly cleaned and washed, and as no further excrementitious matter came away, the index finger was passed up, though with some difficulty, through the gangrenous orifice, into the cavity of the intestine contained in the abdomen. On withdrawing the finger there was no appearance of a discharge of excrement. Without destroying the adherences of the intestine to the neck of the sac, the operator made three deep incisions into the crural ring; but although various attempts were made, and various directions given to the parts, it was found impossible to evacuate the gut. This latter, probably, depended on the narrowness of the hernial opening, and, in part, on the construction of the gut, produced by thickening of its parietes. Unwilling to abandon the patient to certain death, M. Dieffenbach now resolved on destroying the adherences at the neck of the sac; he then drew the gut out, until the healthy part came into view, and excised all the gangrenous portion comprised between the strangulated point and the line of demarcation. The part removed was, at least, three inches in length. The corresponding portion of the mesentery was removed with a pair of scissors, during which operation a small vessel was tied, and the extremities of the ligature were cut off close to the knot.

During this period both ends of the intestine were secured by the assistants. The operator having united the triangular wound of the mesentery with a very fine suture, he proceeded to unite the intestinal canal. This was done according to the process of LEMBERT, by passing the needle in at about two lines from the edge, and by conducting the ligature always through the edges of the wounded part, so as to comprise the muscular coat, without wounding anywhere the mucous membrane. In this way the serous surfaces were brought into contact, while the mucous surface, thrown into folds, formed, internally, a kind of ring.

The intestine was now replaced in the abdomen with the greatest care, and after having ordered some castor oil to be administered, the surgeon took his leave, persuaded that the patient could not survive the night. Things, however, turned out more fortunately on the following day. As the constipation resisted powerful doses of castor oil, M. Dieffenbach administered some croton oil, and ordered the patient to remain for some time on his legs. Abundant evacuations were immediately discharged, and the patient's state became soon wonderfully improved. For a few days the treatment was mildly antiphlogistic, and the only remedy given was some castor oil in laurel-water. The stools soon became natural, the external wound furnished a healthy pus, and cicatrization advanced rapidly. In fifteen days the man was able to get up, and pass a few hours in an arm-chair. At the expiration of three weeks nothing remained, externally, except a small eschar, and in a month the patient was so completely cured, that he was able to resume the occupition of a day-labourer in the country.

This state of perfect health continued for several weeks, when, after severe labour in the fields, and a copious repast, the man was suddenly seized with violent pain in the abdomen, vomiting, constipation, &c., and died, in spite of all treatment.

Autopsy.—On opening the abdominal cavity, a reddish, transparent, fluid came away, and on exposing the intestines the whole of the anterior part of the abdomen was seen occupied by the small intestine, which was considerably distended, and concealed all the other organs, except a portion of the epiploon, which descended from the right hypocondrium, to become attached near the left edge of the foramen obturatorium. The intestines lying beneath this kind of cord were moveable. When it was cut away, and the coils of intestine were separated, the cœcum, and a portion of the small intestines, were seen to be adherent, behind the crural ring. From this point a portion of intestine, quite free from inflammation, mounted up to the left lumbar region, where it formed an interlaced knot, completely adherent, and violently inflamed. This superficial examination revealed the existence of two distinct lesions.

1st. An adherence and interlacement of the inflamed intestine, in the left lumbar region.

2nd. Adherence of the intestine to the internal edge of the old hernia.

It was evident, however, that the obstruction of the intestine did not occupy the point which was formerly operated on, but was situated much higher up. (The minute details into which M. Dieffenbach enters on this point, we do not think it necessary to translate. Our business relates more particularly to the portion of intestine operated on in the first instance.) The portion of gut below the inflamed knot was empty, and descended in front of the lumbar vertebræ, towards the right side; having disappeared in the cavity of the pelvis it ascended again, and formed several coils, which were united with the minor edge of the crural ring. On removing this portion of intestine, a few drops of pus were observed at a particular point, and here the

surgeon found a small thread of silk, indicating the exact spot in which the ligature had been applied, and, consequently, the place where the intestinal canal had been divided.

The intestine was carefully opened, sufficiently to admit the little finger, but no contraction of its calibre was perceptible, even in the point which corresponded with the suture. It was then slit lower down, and the union of the two portions of the divided intestine was brought into view; this had taken place through the medium of a smooth, even, cicatrix, interrupted in two points, only, by so many threads of suture in suppuration. The suture, first discovered externally, was firmly fixed in this cicatrix, and the two ends projected into the inferior extremity of the gut. The latter ascended from this point for about six inches, and then terminated in the cœcum, which was filled with whitish mucus, and solid fæcal matter.

The internal surface of the intestine presented the following appearances:—It was smooth, without any trace of deposit, as far as the cicatrix, where the valvulæ conniventes disappeared. The cicatrix itself was perfectly even, and about half a line broad. Below it the mucous membrane formed a raised line, along which the serous membrane, and the tissue of the external cicatrix, were attached. Farther down the mucous membrane assumed its natural appearance. Externally, the intestine adhered superiorly and inferiorly with the peritoneal lining of the abdomen, through means of a pseudo-membranous tissue, which afterwards became attached to the cicatrix of the crural ring.—*Graefe and Walther's Journal*, vol. xxiv., No. 3, 1836.

EXTRA-UTERINE PREGNANCY,

OCCURRING

TWICE IN THE SAME WOMAN,

And terminating each time favourably, and in the same manner.

The number of examples of extra-uterine pregnancy recorded in the medical works is considerable. The phenomenon in itself has been studied with so much care, that perhaps the only point which we are unable to explain in a satisfactory manner, is its mechanism. We are not aware, however, that a case similar to the one which follows has been described in any work, or monograph, on the affections of females. It is recorded by Dr. Galliay, in the *Jour. des Con. Med.-Chirurg.*

Case.—A young woman, of sound constitution, enjoying perfect health, shortly after her marriage with a schoolmaster, became engaged in a quarrel with another female, who threw her violently on the ground, and ill-treated her in the most brutal manner. The moral and physical suffering of the patient gave rise to an illness of several days, which, however, subsided without any grave accident.

The abdomen now gradually enlarged, and the young woman thought herself pregnant; the pregnancy seemed to run its course in the usual manner; and after the lapse of nine months several of the phenomena of labour set in, but without any result; the pains soon disappeared, but the abdomen remained developed.

Several months elapsed without any change, and the patient, as well as her friends, commenced to doubt of the reality of the pregnancy. At this period the husband was removed to another parish, and the author of the case lost sight of his patient. After some time the woman was suddenly seized with violent pains in the abdomen, of a peculiar kind. A physician was sent for, but ignorant of the cause of the disease, he ordered some general remedies, such as the warm bath, &c., which produced a momentary calm. The pains, however, soon returned, at shorter intervals, and with greater violence at each access. Several medical men were called in, in succession, without any benefit to the patient, and without discovering the real cause of her sufferings. The latter at length became so insupportable, that a consultation of seven medical men (the author included), was held. The abdomen was now as large as that of a woman in her ninth month: it was tense, and so resisting in every point, that it was impossible to offer any conjecture on what the cause of the tumefaction might be. The whole surface of the abdomen was painful to the touch, particularly about the groins. The sexual organs, examined by the touch, presented nothing abnormal. The pulse was hard, face highly coloured, and the pains excessively acute.

In this state of things, a general antiphlogistic treatment was resolved upon, leaving to nature to clear up the diagnosis. One of the physicians present spoke, it is true, of an extra uterine pregnancy, but the state of the abdomen rendered it impossible to pronounce in any thing like a positive manner. The consultation, therefore, broke up, little satisfied with what it had done, but full of hope. After the lapse of some time, the pains set in with redoubled violence, and the patient felt an imperious desire to go to stool, which she was unable to satisfy. A surgeon, sent for, found a foreign body engaged in the sphincter ani, extracted it, and discovered one of the bones of a fœtus: several other bones were discharged in the same manner, and the woman experienced great relief. For several months, she con-

tinued to discharge fragments of bone per anus; and at length, in the year 1829, recovered perfect health. The physicians had strongly recommended the patient to abstain from all participation in the pleasures of marriage; a counsel which, it appears, she followed, up to 1834, when, after a copious loss of blood from the uterus, the catamenia became suspended, and the abdomen swelled. As the tumefaction increased day after day, the patient got alarmed; but an accoucheur, who carefully examined the vagina and uterus, assured her she was not pregnant. At about the fifth month, the movements of an infant were clearly perceptible, and put an end to all doubt; but the internal genital organs, again explored, seemed to have undergone no change. The movements soon ceased; and, in a few weeks after, fragments of a fœtus were discharged, as before, through the anus; but on this occasion, fortunately, without any pain. Only a portion of the fœtus was thus eliminated; the abdomen, however, gradually subsided, and the woman now enjoys a perfect state of health.

ABSTRACT OF THE ANNUAL REPORT OF THE

BELFAST DISTRICT LUNATIC ASYLUM.

From April 1st, 1836, to March 31st, 1837.

Drawn up by ROBT. STEWART, *M.D. Manager.*

THIS asylum recieves the lunatic poor from the counties of Down, Antrim, and Carrickfergus.

The number of patients in the asylum on the 1st of April, 1836, was 162. Of these 80 were males, and 82 females. Admitted since, males 45, females, 43, forming a total of 88, ten of which were re-admissions from relapses. Total number in the asylum, 250. The discharges since the 1st of April, 1836, have been males 31; 27 of these made good recoveries, three were removed at the request of their friends, and on trial, and one in consequence of its being an unfit case. Of females, 22 have been discharged, 17 cured, and five at the request of their friends.

The deaths during the year have been 31, of these 16 were males, and 15 females. The following analysis shows the causes of death, with the average ages at which the patients died.

	Died.	Average Age.
Chronic debility, with partial paralysis	13	46
General paralysis	6	46
Phthisis pulmonalis	4	28½
Apoplexy	3	40
Epilepsy	3	36
Typhus	1	24
Lumbar abscess	1	50
Total	31	38½

The number of deaths is in a larger ratio than usual, which fact is explained, in part, by the circumstance of there having been a comparatively greater number of persons who were infirm from age, as well as from the effects of chronic diseases, who were carried off in rapid succession during the last two severe winters. Many, on their admission, were in a hopeless state, and others more fitting to receive the benefits of a regular medical hospital, than for a lunatic asylum. To prevent, in some measure, the growing irregularity of admitting such cases, Dr. Stewart recommends the strict personal examination of the patient sought to be placed in the asylum, by the professional gentlemen called on to sign the certificate, to ascertain that the case partakes more of a mental than a physical disease; and he relates a case in which a patient of seventy years of age, who was lately admitted into the establishment, was covered with sores, and was "a mass of such grievous bodily infirmities, that no hospital would receive him." This case, it was "apparent, was not a subject for relief from the asylum, though duly certified for as such."

Patients in the hospital on the 31st of March, 1837:—Males, 78; convalescent, 7; curable, 10; incurable, 61. Females, 88; convalescent, 6; curable, 17; incurable, 65.

Of these 166 patients, 138 are generally employed; 65 males, who work in the garden, weave calico, &c.; and 73 females, who spin, knit, wash, &c.

The average number of patients treated daily during the past year has been 166½. The average cost of each per annum, was 18*l.* 12*s.* 2*d.* The average cost of diet, per head, per diem, was 4¼*d.* The dietary consists of *breakfast*, one quart of stirabout, and one-third of a quart of new or mixed milk. *Dinner* three days a week; three pounds of potatoes and a quart of soup; four days, three and a half pound of potatoes and a pint of mixed milk, or soup. *Supper*, half a pound of bread, and one-third of a quart of new, or mixed milk. The convalescent patients actively employed, have four ounces of meat in addition to the above, on three days in the week. The physician may alter the diet if required.

The receipts were,—

	£.	s.	d.
From government	3000	0	0
Balance in hand	326	15	9
Linen sold, made by patients	34	15	8
Wheat, vegetables, &c.	62	15	3
	£3424	6	8

The expenditure was,—

	£.	s.	d.
Provisions	1254	3	8
Clothing, bedding, furniture	415	6	10
Stationery, &c.	16	7	11
Coals, candles, soap	183	13	6
Medicine and surgical attendance	59	13	7
Repairs and alterations	353	10	9
Insurance, farm expenses, &c.	89	2	1
Incidents, salaries, wages, &c.	726	17	9
	3098	16	1
Balance	325	10	7
	£3424	6	8

A building for receiving incurable patients was commenced in 1835, and is now finished, and supplied with the requisite furniture. It affords an asylum for fifty males, and the same number of females. The cost of the building, &c. has been £3949 17s., which has been paid by government.

IRISH MEDICAL CHARITIES BILL.

MEETING OF THE COLLEGES OF PHYSICIANS AND SURGEONS, DUBLIN.

On Thursday, June 8th, a general meeting of Fellows, Members, and Licentiates of the Colleges of Physicians and Surgeons, was held at Morrison's Hotel, "for the purpose of considering the provisions of the Medical Charities of Ireland Bill." Dr. Marsh was called to the chair.

Dr. Jacob proposed the first resolution, which was to the effect—"That it was the opinion of the meeting that a legislative enactment to provide for the support of medical charities in Ireland, and procure the application of the funds to their legitimate objects, was desirable.

Dr. W. Stoker rose to propose an amendment to the resolution, upon the ground that some regulations were necessary for the improvement of abuses.

Dr. Collins suggested that more time should be allowed for the consideration of the resolutions. It would be prudent to publish the resolutions in the morning newspapers, and meet again on the following day. Numbers of interested persons were not aware that the meeting would take place.

Dr. Lendrick concurred in this opinion. (*Hear, hear.*)

Dr. O'Beirne observed, that the Bill would be read on the 15th, and, therefore, unless they took immediate steps they would not be able to place the necessary materials in the hands of the Ministers. (*Hear, hear.*) The Bill had already engrossed the consideration of the members of the profession.

Dr. Brady considered that the gentlemen who were averse to the adjournment had no cause for apprehension on the ground of not being in time before the Legislature, when they took into account the slow rate at which modern legislation was carried on.

After a long discussion, the Chairman put the amendment suggesting the adjournment, which was rejected. The first resolution was then passed.

Dr. J. Crampton proposed the second resolution, which was to the effect—"That the establishment of a Board of Inspectors, if composed of well-regulated, independent, and experienced members of the profession, was calculated to render the charities of Ireland more valuable, and improve the situation of the medical attendants by defining their duties, and securing to them adequate remuneration." The inspectors should be independent of party feeling, and the smiles or frowns of a great man in any part of the country. Such a Board would render the situations of medical attendants throughout the country much more comfortable than at present.

The Surgeon-General considered that the duties of inspectors should be more intelligibly defined. Nothing could be less advantageous to the profession than having Inspectors appointed with such duties as the resolution set forth. Was anything more calculated to lower a medical man than to have an inspector over him, interfering with the management of a patient who was under his care. (*Hear, hear.*)

Dr. O'Beirne begged to say a few words in reference to the Board of Inspectors,—four Inspectors, invested with equal powers, with neither a head nor a tail to it. He wished to point out the injury which the Board might inflict upon the gentlemen connected with the medical institutions of Ireland. Take the case of an inspector visiting an hospital, and making unfavourable reports of it, and probably unjust recommendations. To whom were the medical officers to appeal? Was it from one inspector to another; or should the case be referred to the considerarion of the superintendent? The Poor Law Commissioners were to possess the control of those inspectors, and those Commissioners were, indeed, very incompetent to decide upon matters purely medical, and if the profession permitted that kind of interference, where would it end? (*Hear, hear.*) It was impossible that peace could be maintained or justice administered, so long as all the Board were masters. It would be useful to recommend to the Legislature the appointment of a general inspector. They deserved some such compliment. Every situation of honour and emolument had been taken from the profession and given to another profession, which, to speak temperately, did not possess any-

thing like the claims which might be advanced by them. (*Hear, hear.*) If ever a time arrived at which they could assert their rights, and make a stir in the world, this was the time. (*Loud cries of Hear, hear.*)

The SURGEON-GENERAL said, that, for his part, he would not act as a medical attendant in any hospital, if he were to be interfered with by an inspector. (*Hear, hear.*)

Dr. JACOB observed, that to a gentleman practising in town, the interference of an inspector might prove disagreeable, but the case was not so in the country. The medical man in the country was so much under the control of the persons who subscribed to the institution, that an inspector was necessary to define his duties. Without medical inspectors the bill could not work, for all the laws for the application of funds were vested in them, and if the profession did not approve of them, it was a disapproval of the bill itself. (*Hear.*)

Surgeon KIRBY said that the duties of inspectors should be defined, because inspectors appointed certain clerks and "officers," who could be dismissed by them, and it was worthy of consideration whether the "officers" were not the "medical men" themselves.

Surgeon COLLES would limit the power of the inspectors to the simple duty of making a report, and to lay down regulations, when necessary; but he disapproved entirely of their interfering with medical men. (*Hear, hear.*) The first question was, Would they have a Board? For his part he would say "yes." It was a good thing to make valuable places. (*Laughter.*) It was also advisable to bring the profession nearer to the government, for, at present, the profession and the government were as much asunder as the two poles. (*Hear, hear.*)

Surgeon CUSACK observed, that the section of the Act making the inspectors omnipotent over medical charities had actually passed.

Surgeon WRIGHT objected to inspectors altogether. (*Hear.*) The profession had for seventy years proceeded in its labours without them, and no such a proceeding was necessary now. (*Hear, hear.*) They were told that there were malpractices in the dispensaries, but those dispensaries, as far as their financial management went, were under the control of the Grand Juries.

The resolution was then carried, with a few dissentient voices.

The SURGEON-GENERAL proposed the third resolution, which was to the effect, that the power to be entrusted to the inspectors was so indefinite, and so liable to misconstruction and arbitrary exercise, that the meeting protested against it.

Dr. W. STOKES seconded the resolution.

Surgeon COLLES proposed the fourth resolution, which was in substance as follows:

"That the meeting observed with regret that the laws securing payment to the medical attendants of infirmaries, fever hospitals, and dispensaries, are about to be repealed, without remuneration, and even the £100 a-year, paid for nearly 70 years to each of the surgeons of the county infirmaries, was withdrawn, and applied to the payment of the Board of Inspectors, which was exceedingly unjust." He found it was impossible to give any other interpretation to the Act than this, that the money was to be withdrawn from the practitioner, and applied to the payment of inspectors. The county infirmaries throughout Ireland were filled by men of the highest attainments, who were driven to accept situations in them, because they had not the means of holding out in competition in any of the large towns. It was unjust to deprive those indefatigable men, many of whom had grown old in the profession, of the salaries which originally induced them to enter upon that profession. He could hardly think it possible that any legislature, with its eyes open, could introduce such a clause. (*Hear, hear.*)

Surgeon SMALL conceived that the resolution was not strong enough. He for one would protest against any gratuitous duty being discharged by a medical man.

Dr. ROBERT ADAMS seconded the resolution, which passed.

Surgeon CARMICHAEL proposed the fifth resolution, which was to the effect, "That ample remuneration to medical officers should be required as an act of public justice, and a necessary security for a faithful discharge of their duties towards the poor entrusted to their care." Medical men were worse rewarded than any men in the community. (*Hear.*) In fact, it appeared that government, on all occasions, evinced the greatest contempt towards medical men; and not only that, but all the offices of emolument and honour (that of Surgeon-General and State Physician, and even the paltry salary of the Physician of the *House of Industry*), were about to be abolished. If the profession co-operated for their mutual advantage, this never could be the case.—(*Hear.*) In the time of the cholera a number of lawyers were engaged to forward the registries, and of course a number of medical gentlemen were employed throughout the country in attending to the afflicted. The former were remunerated with five pounds per day, while the latter received, perhaps only one pound, though the lawyer only experienced a little labour, while the physician risked his life. (*Hear, hear.*) By the appointment of medical inspectors he considered that the profession would be brought nearer to the government. He trusted that they would be well paid.

Dr. MONTGOMERY seconded the resolution.

The SURGEON-GENERAL wished to answer the inquiry, Why medical men were under-

valued by the government? When the question of taking the salaries from the officers of the *House of Industry* was first discussed, he was spoken to upon the subject by the chief Secretary of that day, and every argument which he (the Surgeon-General) could use to impress upon him the monstrous injustice of forcing medical men to perform such duties unremunerated, was resorted to by him. But the answer given to him,—indeed by every Chief Secretary since,—was, that there were upon his table bundles of letters from members of the medical profession, offering to undertake the duties gratuitously. (*Shame, shame.*) He read these letters, but of course it would not be proper for him to mention any names. Another answer to every argument in favour of the profession was, that in England no remuneration for such services was required, and *Guy's* and *St. Bartholomew's Hospitals* were instanced in confirmation of the assertion. To be sure there was to this objection a very satisfactory answer, namely, that there were schools attached to the hospitals cited, which produced from £1,500 to £2,000 per annum to each, and a physician or surgeon could very well afford to attend them gratuitously, when such emoluments were to be procured from the schools; but in Ireland the case was quite different. (*Hear.*)

Dr. KIRBY proposed the sixth resolution, namely, "That every person appointed to an infirmary, hospital, or dispensary, should define the period of his education, and the nature and extent of his qualifications," &c.

Dr. O'BEIRNE seconded the resolution.

Dr. BRADY did not conceive that the resolution just proposed would have been brought forward at so late an hour, when a great number of individuals had left the room. The effect of the resolution would be to continue the condition of the institutions in the respect of exclusiveness, which hitherto had been a disgraceful monopoly.

Doctor O'BEIRNE would ask Dr. Brady if he wished that a physician who had obtained his degree in Aberdeen, Edinburgh, or Glasgow, should rank equal to him?

The CHAIRMAN put the resolution, which was adopted.

The usual vote of thanks having been passed to Dr. Marsh, the meeting separated.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

June 13th, 1837.—Dr. Bright, President.

THE first paper read this evening, was a short supplement to (LANCET, present Vol., page 207,) a former paper by Dr. KINGSTON, on non-tubercular cavities. He now stated; that five of his cases of pulmonary excavations existing independently of tubercles, had been noted by Dr. J. A Wilson, Dr. C. Aldis, and Mr. Malton, as having been considered by them to be such, and as having occurred within six months: he added quotations from Dr. Baillie, Dr. Abercrombie (Edin. Medical and Surgical Jour. 1821,) Dr. Alison (Trans. of the Edin. Med. Chir. Soc., 1824), and Sir. A. Crichton, shewing that those pathologists, among others, considered pulmonary excavations which were consequent on peripneumonia, and unconnected with tubercles, to be far from uncommon.

SECONDARY MEASLES.

A case of secondary measles, by Dr. JOSEPH MOORE, Physician to the Royal Freemasons' Female Charity, and Vice-President of the Phrenological Society of London, was next read. The patient was severely affected with measles at the age of 22 months, in May, 1836, at which time all the other children in the family (five in number) were successively affected, all, with one exception, severely. Every trace of the disease had disappeared in the child first mentioned, by the 10th of June. On the 31st of July, she became the subject of a second attack of rubeola, as well marked as the first, from which she was convalescent on the 9th of August, but the skin did not speedily resume its natural colour. Measles did not prevail as an epidemic at the time of either of the attacks.

Dr. COPLAND said, that he had known measles to occur a second time, in two instances. He had attended two grown up daughters of a medical practitioner, with the affection unequivocally marked, both of them having gone through the regular course of the disease twelve years before. There was nothing in the second attack which differed from the usual symptoms of measles, but the fever was of rather a low character, and required the restorative treatment. In the first case the father had attended the children, but he is positive that the affection was genuine rubeola.

Dr. WEBSTER said, that he had attended a young lady with measles, who had been attacked with the disease on two occasions before, in each instance going through the regular course of the affection. The testimony of the parents and of the governess of the young lady was adduced in support of the last attack, being precisely the same as that on the two preceding occasions. He, Dr. W., had attended the patient in the last attack only; he was sure that it was measles, and he had no reason to doubt that the former attacks were of a similar character. He had known two other instances in which measles occurred twice in the same individuals.

Mr. ANCELL mentioned a case in which measles occurred a second time in a young man who had suffered from the affection ten years before. On the second occasion,

the symptoms were unusually severe, the eruption continuing for the space of eighteen days. He did not attend the patient in the first attack.

Dr. MOORE said, that he had brought forward the case which had been read, because he believed that only one similar instance was on record. He knew that many practitioners would say that they had seen cases of secondary measles, but when pressed hard, they acknowledged that they had not attended the patients in the first attack. What he wished to ascertain was, whether any member had attended an individual during both attacks, and whether these attacks bore all those unequivocal characters of rubeola which were essential to its existence.

Dr. COPLAND said, that in the instances which he had mentioned there could be no doubt that the attacks in both instances were those of genuine rubeola.

Dr. MERRIMAN said, he had frequently heard of measles occurring a second time in the same individual; in his own practice he had only known one such instance; this occurred in a young lady who had gone through the disease in its regular form three years before. He attended her on both occasions.

RETENTION OF URINE FROM TUMOURS WITHIN THE BLADDER; WITH A SACCULATED BLADDER, AND LARGE ACCUMULATION OF CALCULI.

A case thus headed, drawn up by Mr. J. B. ESTLIN, was then read.

The author, in this paper, furnished the sequel of the narrative of a case already in print, the subject of which suffered at the time of the attack formerly related, from a tumour in the abdomen, extending from the eleventh rib, on the right side, to the symphysis pubis. This tumour having been discovered to be capable of being emptied by a catheter, it was regarded at that time as consisting of a sacculated elongation of the bladder, and by the frequent use of the catheter it entirely disappeared. Since the time referred to, the patient's health gradually declined, and he required the more frequent introduction of the catheter. Muco-purulent matter was occasionally discharged with the urine, and sometimes small scales of calculous matter stuck in the aperture of the catheter.

In February of the present year, the patient died, from an attack of influenza, when a post-mortem examination revealed the nature of the tumour which was formerly observed, the right ureter being enormously enlarged in calibre, and thickened in its coats. Three distinct semi-cartilaginous tumours were connected with the prostate gland, around the orifice of the urethra, forming a complete valvular impediment to the exit of the urine. A very large number of calculi, varying in size from that of a chesnut to that of a sweet-pea, was found in the bladder, and in sacculi formed between its parietes. Some of these were so imbedded in the pouches that they could not be removed without squeezing them out. The calculi, on analysis, were found to consist of phosphate of lime, and the author observes, that no material suffering resulted from their presence.

The PRESIDENT, on retiring from the chair, again spoke of the necessity of members sending their communications early in the session. Notwithstanding the present "extraordinary" meeting, a valuable paper was still unread; but it would form the subject of the first evening of the next session.

MEDICO-BOTANICAL SOCIETY.

At the last meeting, a number of members collected for the purpose of hearing Mr. WHITLAW, of Finsbury, give some account of his manner of preparing plants, by which their virtues are said to be retained for a considerable period. This expectation, however, was not verified, for even, with great rapidity of speech, an hour elapsed without allusion being made to the modes of preparation. Nevertheless, the plants were exhibited on the table. The speech embraced a variety of topics, including improvements in agriculture, in botany, in therapeutics, the improver, in every instance, being the eloquent gentlemen himself, who advanced some very original views in the course of his statement, the most remarkable of which was an expression of his belief, that the late influenza was mainly attributable to the cattle having eaten an unusual quantity of buttercups just before the occurrence of the epidemic. This, with many other equally peculiar opinions, produced much natural merriment amongst the members. The "greatest discovery," however, which he had to announce, comprised an enumeration of the virtues of the polygala senega, which eradicated all diseases. Under his skilful management, scrofula, in all its forms, had given way before this "invaluable remedy," and phthisis pulmonalis, that opprobrium of medicine, had been cured by it. In short, to use the words of the speaker, "all the drugs in Apothecaries' Hall, put together," did not contain one half of the virtues of this remedy. Its alterative properties, alone, were so extensive, that the length of their recital afforded the members an opportunity of having a refreshing sleep. Indeed, the rubbing of Mr. John Long, and the purging of Mr. Morison, have cured a less number of incurable cases than the polygala senega. Many noble lords and honourable baronets were amongst the list. In conclusion, Mr. Whitlaw observed, that he should be willing to supply medical men with "any quantity of it on the most reasonable terms;" or to receive patients to

treat who could well afford to pay for what he might order them to take.

Dr. SIGMOND took the trouble to explain the difference betwen rational views of medical treatment, and those which had been expounded by the speaker who had preceded him.

A Treatise on Painful and Nervous Diseases, and on a new Mode of Treatment for Diseases of the Eye and Ear. By A. TURNBULL, M. D. Third Edition. London: Churchill, 1837.

THIS book is a congeries of advertisements, in which are bruited a number of cures, said to have been affected through the instrumentality of Dr. Turnbull, with the alkaloids *veratria*, *delphinia* and *aconita*. The diseases declared to be cured or alleviated by these remedies, are the well known intractable affection, tic douloureux, various other forms of neuralgia, angina pectoris, hypertrophy and irregular action of the heart; rheumatism, gout, dropsy, paralysis, spasmodic affections, scrofula, goitre, cynanche tonsillaris, odontalgia, contusions, amaurosis, iritis, and internal opthalmy; opacity of the cornea, lenticular and capsular *cataract*, unhealthy secretion of the cerumen of the ear, obstructed eustachian tube, thickened tympanum, and paralysis of the auditory nerve. This pieball list is the author's own.

Dr. Turnbull labours under the impression, that he is communicating *great novelties to the profession*. This, however, is an hallucination. Since the discovery of the vegetable alkaloids, the attention of practitioners has been very much directed to the investigation of the influence of those substances over the human constitution. Magendie, for the last dozen years, has been unremittingly engaged in experimenting with these agents on animals, and thus acquiring principles for our guidance in the application of them to man. Dr. Bardsley's work, containing the result of his researches as to the therapeutic powers of strychnia, dilphinia, &c. is almost universally known to the profession: and several practitioners in this metropolis have also distributed extensive information as to the nature and properties of the alkaloids generally.

Wrapt up in the imaginary exclusiveness of his knowledge, Dr. Turnbull says, "The remedial powers of veratria in tic douloureux, neuralgia, and affections of the heart, and amaurosis, were unknown previously to January, 1834, when I published the first edition of this work, in which is detailed my experience as to the external uses of veratria in those diseases." This passage proves nothing but the remarkable ignorance of Dr. Turnbull on general topics of medical conversation. Veratria has been frequently used as an external topical remedy for the last seven years. Dr. Basham has used it successfully in the form of ointment, in the proportion of six grains to the drachm of simple cerate, in cases of chronic rheumatism, sciatica, and neuralgia of the face: and Mr. Alexander has for a longer period employed it in an ointment of nearly the same strength as Dr. Basham's, in functional amaurosis. One case, in particular, we recollect, related by Mr. Alexander, as having occurred in his practice about seven years ago. A young lady, from Yorkshire, came to Mr. A., affected with total blindness; at first the surgeon could scarcely believe that any thing ailed the patient, for the eye presented the natural appearance. A closer examination, however, exhibited the singular phenomenon of an intermitting or spasmodic contraction of the iris. Mr. Alexander directed the veratria ointment described, to be rubbed into the temples of the patient, night and morning and in a month she was completely restored.

Dr. Turnbull having procured a hobby to ride (whether his own, or another man's, matters not), thus describes the mode by which he vaulted into the saddle:—

"I rubbed," says he, "upon my arm, for a few minutes, an ointment consisting of two grains of veratria and a drachm of lard, which caused great heat and tingling. At these sensations I was much astonished, and expected to find either redness of the skin, vesication, or eruption, follow, but to my great surprise, nothing of the kind took place. The ointment was washed off with soap and water, which increased the heat and tingling: about an hour afterwards these were followed by an agreeable cold sensation. Finding no injury to my health from it, I repeated the application upon the arm, when a sensation similar to that produced by electricity or galvanism ensued; and on passing my finger rapidly over the part, an electric feeling followed its track. To avoid circumlocution, I shall use the term *electro-stimulation*, to express this combination of heat and tingling, or electric-like feelings, and any

substance producing these sensations I shall call *electro-stimulant*."

The foregoing fact having been discovered, Dr. T. announces the invention of a grandiloquent term which involves an hypothesis. From the fancied similarity between the sensation produced by an electric shock, and that arising from the rubbing in of veratria, he at once concluded that the stimulant was electric. Hence arose an imposing appellation, which should serve as a mask to conceal the identity of a well-known simple fact.

A physiological truth, once ascertained, requires no great stretch of invention to establish a course of inquiries as to its therapeutic relations, and we find that Dr. Turnbull, although anticipated, has not been inactive in this respect. He says,

"Veratria may be used in the form of ointment, embrocation, or plaister. The application of it to the skin, deprived of its cuticle, occasions extreme pain and irritation. The manner of using the application is this: the hand must be kept moist with the fluid or unguent, and must be moved with much speed, but not lightly. The time employed in the rubbing cannot be specified, but the stimulation should be continued until the paroxysm be removed. Should the patient have any doubts as to its removal, the friction should be discontinued for a minute or two, and resumed if all pain be not gone. Where the skin is thick, as in the hands or feet, the application should be continued for a longer time. Veratria, however long applied, does not produce any redness, vesication, or eruption, unless the lard with which it is mixed contains common salt, and there is not the least fear of using it too long, as beyond a certain point the *electro-stimulation* becomes quite insupportable, but before such a strong impression is produced the paroxysm is gone. The veratria ought to be used twice a day as long as the disease continues, and then for a week after the cessation of the paroxysms, and afterwards gradually discontinued. If the intervals of the paroxysms are not lengthened after the application has been continued four or five days it should be increased in strength, or changed for another alkaloid, as a repetition of the same application daily, without lengthening the intervals, soon fails to cure the disease; or there should be a cessation of the means for a week, and a resumption of them in greater strength; or there might be adapted a union of *veratria* with *delphinia* or *aconitine*; or a union of the internal with the external administration should take place."

Veratria is given internally, in the form of pill; one-twelfth of a grain for a dose.

The following are the formularies for all the remedies:—

Veratria Ointment.—℞ *Veratriæ*, ʒss.; *Ol. Olivæ*, ʒj.; *Adipis. ppt.*, ℥j.; M. ft. ungt.

Veratria Embrocation.—℞ *Veratriæ*, ʒj.; *Spir. rectificat.*, ℥ij.; M. ft. Emb.

Veratria Pills.—℞ *Veratriæ*, i. gr.; *Ext. hyosciami*; *Pulv. glycyrrh.* aa. gr. xij.; M. ft. pil. xij.; quar. sum. una. tertiis. horis.

Any of the salts of veratria may be employed in the preceding prescriptions in the same proportions.

Tincture of Sabadilla.—One pound of powdered sabadilla seeds to be macerated in two pounds of rectified spirit for seven days, and filtered.

Alcoholic Extract of Sabadilla.—Made by evaporating the tincture of sabadilla to the consistence of an extract.

Sabadilla Pills.—℞ *Ext. sabadillæ alcohol.* gr. ii.; *Pulv. glycyrrhizæ*, gr. xij.; ft. pil., xii. quarum sum. una. tertiis horis.

Ointment of Veratria and Hydriodate of Potass.—℞ *Veratriæ*, ʒ; *Pot. hydriodat.* ʒss.; *Adipis.* pp. ℥j; M. ft. ungt. Add a few drops of water to the hydriodate of potass, and rub it to a fine powder, then add the veratria and lard, and mix them carefully.

Ointment of Veratria and Mercury.—℞ *Ungt. hydrarg. fort.*, ʒj.; *Veratriæ*, ʒss.; M. ft. ungt.

The salts of delphinia may be used in the same doses as those of veratria. The formulæ of the preparations of *aconitine* are as follows:—

Aconitine Ointment.—℞ *Aconitinæ*, gr. xvj; *Ol. Olivæ*, ʒss.; *Adipis ppt.*, ℥j; M. ft. ungt.

Aconitine Embrocation.—℞ *Aconitinæ*, gr. viij.; *Spir. rectificat.*, ℥ij.; M. ft. *Embroc.*

Aconitine Pills.—℞ *Aconitinæ*, gr. j.; *Pulv. glycyrrhizæ*, gr. xvj.; *Syrup.* q. s. Ft. pil. xvj.; quar. sum. tertiis. horis.

Tincture of Aconite.—Macerate one pound of coarsely-powdered aconite root in two pounds of rectified spirit for seven days, and filter; dose, five drops three times a day.

Alcoholic extract of aconite is formed by evaporating the tincture to a proper consistence.

Aconite Pills.—℞ *Ext. Aconit. Alcoh.* gr. ij; *Pulv. glycyrrh.*, gr. xij; *Syrup* q. s. *ft. pil.* xij; *quarum sum. j, 3tis horis.*

Tincture of Stavesacre.—Macerate for seven days, one pound of Stavesacre-seeds in two pounds of rectified spirits, and filter.

Formulæ for the affections of the ear.—The ointments and embrocations of veratria, delphinia, and aconitine are to be used of the same strength as those for tic douloureux, and to be rubbed in for a quarter of an hour daily.

VERATRIA DROPS.—℞ *Veratriæ*, gr. iv.; *Spir. rect.* ʒss. *Solv.*

Delphinia drops are of the same strength, and those of aconitine of half the strength. Five of any of the drops to be put into the ear daily. The tinctures of sabadilla, staves-acre, and aconite, may be used similarly.

The physical effects of veratria we have already noticed. Those of delphinia are thus described:—

"I rubbed into my arm an ointment consisting of two grains of delphinia, and a drachm of lard, which, in a few minutes, produced heat, and numerous small tingling points in the part, accompanied with a throbbing sensation, and a slight blush of redness upon the skin, and, after a few hours, the arm felt rather cold.

"In toothach delphinia embrocation is to be applied upon lint to the cavity of the tooth, or to be rubbed upon the gum.

"From the power which delphinia exerts on the capillaries, it is more fitted for paralysis than veratria."

The physical effects of aconitine are the following:—

"When any part of the aconitum napellus is applied to the tongue, or rubbed on the skin, it produces in those parts, heat, tingling, and numbness, which continue for hours. The same sensations are produced by a tincture or extract of the plant; and when a very minute portion of the extract is applied to the eye, intense heat and tingling are produced, and the pupil becomes very much contracted, and continues so for several hours. Aconitine, when applied to the tongue or skin, causes intense heat, tingling, and numbness, which continue for more than twelve hours. The chief sensations arising from aconitine, when used in disease, are acridity, or tingling, and numbness."

To the truth of these facts, former pages of THE LANCET bear testimony. In proof of the therapeutic efficacy of veratria in tic douloureux, Dr. Turnbull publishes the history of 13 cases; in general neuralgia, 12 cases; in affections of the heart, 9 cases; in rheumatism, 10 cases; in gout, 4 cases. In proof of the power of delphinia, we are presented with an account of three cases of tic douloureux; and as an evidence of the therapeutic excellence of aconitine, seven cases of neuralgic disease are adduced; one of which appears to be that of Samuel Best, residing at 7, Somer's-street, Liquorpond-street, who was dismissed from *St. Thomas's Hospital* as incurable, by Dr. Elliotson, and whose case is related in THE LANCET of 8th December, 1832. This patient was "completely cured" in the course of a month by the aconitine. Sufficient record of the powers of these medicinal agents in ophthalmic diseases has already appeared in THE LANCET. Of their efficacy in the diseases of the ear no proof is afforded.

The cases which have been adduced by the author are *jejune*, and loosely put together. The book altogether furnishes no evidence of pathological wisdom, and affords no justification of the high pretensions of the author as a discoverer. Nevertheless the facts alluded to, though ill-defined, and poorly attested, are sufficiently interesting to excite the attention of practitioners, and demand from them an impartial investigation, either for the corroboration or the extinction of the therapeutic principles attempted to be founded thereon. The author has contributed, by his obtrusive pertinacity, to irritate the ears of the public. This is a labour of no merit, but we recollect that although Rome was aroused only by a cackling, yet the benefit of the noise extended even to the conscript fathers.

Pharmacopœia Collegii Regalis Medicorum Londinensis. Printed by order of the College. By G. WOODFALL. London. 1836. 8vo., and roy. 32mo.

A Translation of the Pharmacopœia Londinensis, with Notes and Illustrations. Mr. RICHARD PHILLIPS. 8vo. Published by Highley.

A Translation of the Pharmacopœia, &c. &c. By Dr. SPILLAN. 32mo. Published by Renshaw.

A Translation of the Pharmacopœia, &c. &c. By D. G. F. COLLIER. Roy. 8vo. Published by the Translator, Spring-gardens.

The appearance of a new Pharmacopœia may, in every point of view, be regarded as an event of considerable importance, both to those who are intended to be governed by its dicta, and to the public at large, whose health and welfare it is designed to preserve and promote. The circumstance constitutes an era in the history of science,—a period of time at which the medical traveller, who has been toiling with difficulty along an arduous road, can pause for a moment to examine the various materials which he has collected during his journey; to arrange them; to cast away the superfluous objects, and to prepare for a more energetic advance in his progress,

benefitted by experience, instructed by new information, and strengthened in confidence.

If there ever existed a period at which these advantages might especially be anticipated on the possession of a new Pharmacopœia, the present is that time, the years of its preparation having been distinguished by a series of most happy and brilliant events in the history of science. Never were strides more rapid made in discovery than those which the human mind has taken since the close of the last century. Every department of inquiry in which the human intellect has been engaged, has been enlarged beyond precedent. To all the sciences, a new impetus has been given. However distant the prospect of advantage, each has been explored by ardent pilgrims, who, though often baffled by the difficulties of his path, has trodden onwards, satisfied to be still engaged in the toil; and although having, perhaps, only that toil for his reward, yet, "studio fallente laborem." Observe the multitudinous branches of natural history; how diligent and earnest have been their cultivators! All the sciences which have a kindred connection with medicine, how abundantly have they aided the progress of that art! How bright has been the light which they have shed upon many of its obscurities! Societies for each variety of its pursuits have been instituted, libraries formed, and museums founded, and the busy hum of intellectual labour has been heard on every side. One science, previously almost a barren field, has not only studiously investigated the immediate objects of her choice, but has placed in our hands truly energetic instruments of art, by which the most ponderous masses are rendered easy of burthen; the most laborious work quick of accomplishment, the most remote points safe and certain of access; while minor discoveries, almost innumerable, have rendered all surrounding nature subservient to our wishes and our wants. Botany, too, has been pursued by its votaries with an enthusiasm which is well worthy of those who appreciate the equally magnificent and lovely works of creation which are embraced within its circle, and the vegetable kingdom is hourly made to unfold new treasures and present fresh resources for our advantage.

Thus has science progressed, until we have begun to feel conscious that we are at the very gates of a mighty kingdom of art, within whose walls may be possessed and enjoyed those high and legitimate rewards of intellectual industry, that moral refinement, and just condition of human existence, which it seems consistent with reason to anticipate for beings so richly endowed with mental capacity as man.

Naturally led to reflect thus on our receiving into our hands a new work of science, we now turn, consistently with our first object in taking up the pen, to the immediate subject of the volumes which are before us, and are at once led to remark that it is a matter of serious inquiry, whether the Royal College of Physicians has in this national undertaking availed itself of all the sources from which knowledge was to be gained, and whether it has placed that knowledge in such a form as to render it more available to those persons for whose use it has been constructed. Has the College fulfilled honestly, conscientiously, and justly, the important objects which common sense teaches us must be sources either of happiness or of sorrow to the sick and the suffering. The chartered body from which the Pharmacopœia issues, has undertaken the guidance of men who are acknowledged to have attained the highest degree of mental cultivation of which the present state of knowledge admits. It has promised in its prefatory address, to furnish medical men "with means by which they may more certainly and safely contend with disease, and restore the sick to the wished-for enjoyment of health." The first step, however, that it has taken is one which, although it demanded the most forcible appeal for its necessity to the profession, is introduced with a lame and impotent apology. The change of the nomenclature is thus alluded to. We quote from the translation which, with such bad taste, has been declared by the College to be almost official;—

"In the present day it is scarcely necessary to discuss the change of names, for although all admit that it ought not to be done inconsiderately, yet it was to be feared lest the avoidance of the error likely to arise from the change, should lead to a greater one; we are persuaded that the name which the most eminent professors of the science have bestowed upon a substance will eventually be the most certain and permanent. We have, therefore, determined to follow their footsteps, and put up, for a time, with inconvenience, if any should arise, or learn to speak barbarously rather than incur the danger of becoming obscure,

from employing a doubtful or ill-defined expression."

Had this been applied to the giving of names to new objects it might have been satisfactory; but to expose the community to danger, and the old-established practitioner to useless study and ineffectual labour, by changing the well-known and very descriptive names, for terms which will again be altered when a new system is established, or some new-fangled doctrine gains a momentary ascendency, is inexpedient, unwise, and unjust. The great curse of science at the present hour, is, that every individual, so soon as he has acquired a smattering of the branch which he follows, invents a new system, or disfigures the old one with a heap of absurd names, borrowed from the Greek and Latin, and applied to objects which were to the antients perfectly unknown; neither chemistry nor botany will justify this trifling with the welfare of our fellow-beings, by giving the fantastic appellations which every self-styled philosopher chooses to impose upon well-known objects. In chemistry, a few short months may subvert the whole edifice. At this very moment we are, as it were, standing on the verge of some of the most extraordinary discoveries that have yet been unfolded to us. A power, call it what we may, is about to be intimately explored, and to be rendered subservient to the uses of man, which may completely change our views of the elements of bodies. Already does electro-galvanism excite within our minds expectations which, though they may be too sanguine, should teach us to pause, to weigh well, and to feel that our present knowledge is but as a trifle compared with that which we shall hereafter gain. In botany, there are, too, many egotists. Abundant as are the facts which have been collected, no system of the present day is upon a healthy foundation; each of them must crumble into the pregnant dust from which, like the mushroom, it has sprung. To real observers of nature, to the school of Linnæus we shall return, before much time has elapsed, and leave the philologists, with their hard names and ill-assorted phrases, to the ridicule which they deserve, for making a beautiful and simple science a disgusting mass of chaotic confusion. The love of changing names is an unpardonable folly; it cuts off the declining generation from the rising one, it renders the language in which the most diligent cultivators of science have expressed themselves, obsolete, and substitutes in its place cramped and conceited terms, which are "full of sound, signifying nothing." Upon the medical man, now in the height of his practice, it inflicts a cruel punishment; he is driven from the use of the language which time and habit have rendered familiar to him, to a painful labour of learning, which can give him no practical information, nor enable him to pursue his honourable career with increased advantage to others, and comfort to himself. He acquires by it merely the last new set of names to which caprice has given birth. The shallow pretext which the pseudo-philosophers have so vainly urged, namely, that of having in science "a universal language," ought by this time to have ceased to obtain advocates. The attempt to enforce it has often been made, and so often failed, that we should have imagined the idea to be banished from enlightened minds. The change is eternally going forward; it need not be hastened; the curse of Babel still hangs upon us, and will exist to the end of time. There must ever be a "confusion of tongues;"

"Labitur
"Et labetur in omne volubile ævum."

If all the learned bodies could be brought to accord, it might be well to assimilate our vocabulary; but in vain do we talk of "chloride of mercury" and "bichloride," if the school of Paris insist that it should be "protochloride" and "deutochloride." Of the accidents which are likely to occur, we shall say nothing; for the public mind is easily enough agitated. At Paris and at Brussels, the alterations which have been attempted have been followed by fatal consequences. In one instance, in the former city, a father lost three children in one day, by the substitution of corrosive sublimate for calomel, in consequence of the love of change: the chemist and his apprentice who committed the error suffered fine and imprisonment. And at Brussels a case of very considerable interest has arisen out of the words "muriat. hydrargyri," which the physician insists means *calomel*, and the chemist declares means *corrosive sublimate*. The question has been before the court of Brussels, and it has been referred to another tribunal for decision, the recent alterations having produced doubts as to the precise

meaning of the pharmacopœia. Whatever advance may have been made in chemistry, in twelve years, it cannot justify the substitution of new appellations for old and well known preparations of the metals, which have already had so many changes made in their cognomina, as to render the works of the authors who invented the very formulæ, perfectly illegible. The older chemists present in their works matter which is essentially valuable to us; but their volumes have become incomprehensible, in consequence of the vast number of foolish changes. The time has arrived when science no longer permits a veil to hide her from the public gaze. She demands publicity, that her true simplicity, which wins mankind to worship her, may be seen. She sickens at the unintelligible jargon of the schools, and seeks to be communed with in plain and unadorned language.

It unfortunately happens that the constitution of the College, and the laws by which it is misgoverned, have deprived it of the aid of some of those men who are most capable of giving their abilities and time to the vast objects for which the combined knowledge of a great number of individuals is requisite. Excluding from their councils the licentiates, of whose talents they have given, by their "permission to practice," the highest testimony they could supply, the College has been obliged to resort for aid in its work, to an individual, not a member of the College, who has been a severe censurer of their former labours! Pity 'tis, but yet 'tis true, that ille, ego qui quondam should be now the staff and the prop on which in their old age the Fellows lean,—to whom they have, in preference to one of the Licentiates, accorded the task of translating, expounding, and illustrating, and communicating the new lights which shine upon the community. Mr. PHILLIPS states that, at the request of the Committee, "he has either conducted or inspected the preparation of almost every medicine which has been introduced; and, whilst this alien and stranger to the "great faculty of medicine" is urged on to his publication, Dr. COLLIER, for instance, one of its *protegés*, one who has been examined and admitted, and has paid his money, "and therefore has certain claims on their consideration, which will be understood as well by the Fellows as by the Licentiates," has "to persist in his claim, as one of the public, to translate and comment upon a public document," and "to resent the injury which the College has inflicted upon him," by holding out an indecent threat to any one who should take upon himself the licence which they had given to Mr. PHILLIPS, of translating the Pharmacopœia. Such a proceeding, on the part of the College, is truly undignified and unworthy. Dissatisfied as is the profession with this governing body, it is almost surprising that such an instance of bad spirit was not avoided. There should have been an invitation to every doctor of medicine, to every member of the profession, to contribute to the public store the appropriate information of which he stood possessed. Neither the spirit of the age in which we live, the learning of the individuals who compose the medical profession, nor the feelings which guide their conduct to each other, can warrant the tone that has been assumed by the College, or obtain for its bantling the indulgence which the difficulties of giving a new pharmacopœia to the world, would otherwise have obtained for the production.

Elements of the Practice of Medicine. By RICHARD BRIGHT, M.D. *and* THOMAS ADDISON, M. D., Lecturers on Medicine at Guy's Hospital. Part I. London. 8vo. Pp. 129.

THE opinion rapidly gains ground, that a work containing an accurate view of the present state of Medicine is much needed. The language of Cullen still predominates in the schools, but his principles have long been supplanted by others, resulting from the more accurate observations of the Hunters. Good's congeries of treatises present a ponderous load of learning, but, notwithstanding, the judicious modifications of Professor Cooper, continually present erroneous notions, relating as well to pathology as to therapeutics. Among others, Drs. Bright and Addison have deemed themselves competent jointly to supply the desideratum, but in this instance they have formed a wrong estimate of their powers. In the fasciculus which they publish as a sample, originality of scientific views may be sought for in vain. Their theory of fever is derived from others whose principles require no exertion of ours to hurry into oblivion. The pathology, of course, influences the therapeia, and we consequently find in this work that a violent, coarse, and harassing mode of treatment is generally recommended. The catalogue of their remedies is exceedingly barren, and the memory of the

writers never seems to suggest to them the utility of the more soothing and mild appliances, the judicious selection of which invariably characterises the practice of the truly scientific physician. The two doctors are evidently bitten with the Hamilton mania, and cry out with pertinacity to purge! purge! purge! It might have been expected that the *reductio-ad-absurdum* demonstration respecting the universal employment of calomel, which the late Dr. James Currie afforded, would have deterred his successors from mounting the same velocipede; but the air of our hospitals is thoroughly antiseptic in its influence over error and prejudice.

We still wait the appearance of a well-constructed introduction to the practice of medicine, brought down to the present time.

LOBELIA INFLATA. MR. WHITLAW, SEN.

To the Editor of THE LANCET.

SIR,—You will, I hope, pardon me for thus troubling you; but, my character and reputation having been publicly attacked in THE LANCET of the 3d instant, by my nephew, Charles Whitlaw, jun. of Finsbury Square, whom I brought up, educated, and placed in the station which he now holds in society, I have to perform the very painful task of defending *my own* character at the expense of *his*. Being fast approaching seventy years of age, it is too late to be ambitious of further fame; but in the paper which has given rise to this discussion, I did not, as imputed to me, take the credit of having been the *first* and *only* observer of the poisonous effects of the lobelia on the cattle; for I there acknowledged the Indians to have been fully acquainted with them, and that they had used the plant as a medicine "for centuries." From them, in the year 1816, I received my information respecting it; and, up to that time, no correct knowledge of it could be gained, but from that tribe. In 1817, I communicated the result of my inquiries to Dr. Mitchell, of New York, and it was introduced into the United States Pharmacopœia, in the form of tincture, in 1820. On my return to England, in 1819, I brought some of the herb with me. In 1823, I received two barrels of it from my agent in America. In 1825, more than 50 lbs., and several times since large quantities have arrived to my account, as can be proved by the bills in my possession, which are open to public inspection. During these years I was making experiments on the lobelia inflata in various forms, and became thoroughly convinced of its extraordinary antispasmodic powers. Yet my nephew openly and "confidently" asserts "that until the latter end of the year 1832, I never used the lobelia inflata as a medicine," although his own handwriting, in my books, testifies to the contrary. Instead of "the properties of the plant becoming vaguely known at that time" (1832), I can prove that they were as well understood then as at the present day; for in the "Gazette of Health," for March, 1825, I find a letter from Dr. Jones, of New York, to the editors, on the subject; in which he expresses himself as glad that they had given publicity to a remedy which had been "for *some years*" administered by his professional brethren in the United States, with singularly beneficial effects in spasmodic asthma, viz. "the saturated tincture of the lobelia inflata." Dr. Reece published "a treatise "on the anti-asthmatic properties of the bladder-podded lobelia," in 1828, "with directions for the exhibition of the *preparations* of it." There the case of Dr. Cutler is mentioned; who, in 1827, had been subject to paroxysms of asthma for nearly ten years; and, after fruitlessly trying "stramonium, ether, and the celebrated anti-asthmatic remedies of the day, determined to give the saturated etherial tincture of the lobelia inflata a trial, the first dose of which succeeded in allaying the paroxysms."

Thus we learn that an etherial tincture was made use of *five* years before my nephew *modestly* asserts that, "there being *no* formulæ for *such* a preparation, I *ventured* on the following, &c." There was certainly great risk, when he had at his command my library, containing the "United States Pharmacopœia" and "Reece's Treatise." On my last visit to America, in 1833, I was, as he must admit, if he would tax his veracity on the subject, perfectly acquainted "with the ingredients composing the tincture," which he would wish the public to believe originated with himself; and I deny most strenuously that the mode of preparing it was written out for me by him. From the specious manner in which his letter is written, many may imagine that there had been a partnership existing between us; whereas, after having given him a professional education, I employed him, at a regular salary, to dispense my medicines. All the herb, "since the introduction of the medicine," has been imported by me, and not one particle of it by him, as he equivocally states; and whatever portion he may now have in his possession, was part of my stock. I have now referred to the various charges brought against me by a *grateful* nephew; and let any unprejudiced mind compare my communication in THE LANCET of the 20th ult. with the unmerited and malicious attack made on me in that of the 3rd inst., calculated to injure me in the estimation of the public. I, however, leave him to his own reflections.—I am, Sir, your obedient servant,

CHARLES WHITLAW, SEN.

30, Argyll Street, Regent Street,
June 14, 1837.

MARYLEBONE INFIRMARY.

TREATMENT OF CANDIDATES AND HOUSE SURGEONS.

To the Editor of THE LANCET.

SIR:—In his letter of last week, your correspondent, signing himself "AN OBSERVER," altogether overlooks the most flagrant feature in the case. A defence, which is worthy of the act, may be set up for the rejection of a gentleman claiming to possess "the highest qualifications," on the ground that a strict adherence to the letter of the advertisement was not observed: but far greater ingenuity, it is suspected, will be needed to explain satisfactorily the refusal to admit, as *a candidate merely*, a gentleman who held all the *specific* qualifications, and in every respect came within the terms of the advertisement,—one who, very recently, when a similar vacancy occurred, was the only person, besides the successful candidate, who was admitted as eligible to compete for the office, which may fairly have been claimed as an additional commendation this time. This rejection, however, was as unceremonious as it was unjust, notwithstanding the same scrutineers presided, the same advertisement had appeared, and precisely the same qualifications were advanced, on both occasions. The disqualification of a party thus situated is matter of something more than surprise or astonishment; it is matter almost of disgust. If the case of "AN OBSERVER" furnishes presumptive evidence, surely this carries a conviction, of jobbing.

That a line of conduct, equally honourable, is pursued towards the *successful* candidates at these elections (which are neither few nor far between), may be fairly inferred from the unsavoury fact of this office having been twice vacant within the short space of four months. Some of the initiated could, perhaps, throw further light on the subject. The personal complaints of ill-used and disappointed individuals can effect but little good. They are only so many fruitless probings of an unwholesome sore, which for its cure requires to be freely laid open in THE LANCET.—I am, Sir, yours respectfully,

CAUSTIC.

June 24th, 1837.

To the Editor of THE LANCET.

SIR:—In reference to your note appended to my letter, in the last number of THE LANCET, I beg to state, that Dr. Murray was the gentlemen alluded to as being possessed of the highest qualifications for the office of house-surgeon in the *Marylebone Infirmary*. He was formerly an assistant-surgeon in the army, and was recommended in the strongest terms by Sir James M'Grigor, as being eminently qualified for the situation, application having been made to that worthy Baronet by the Board of Guardians to recommend a fit and proper person for the office. In support of the truth of my former statement, I can, with great confidence, refer to the members of the Committee, more particularly to the medical gentlemen who were on the Committee on that occasion. I have now to return you my best thanks for the courtesy which your were kindly pleased to show me, by giving insertion to my former communication in the pages of your valuable periodical. I have the honour to be, Sir, with great respect, AN OBSERVER.

June 19th, 1837.

CURE OF HYDROCELE BY PUNCTURE AND THE TOPICAL APPLICATION OF THE HYDRIODATE OF POTASS.

To the Editor of THE LANCET.

SIR:—In your analysis (LANCET, April 29th) of M. Velpeau's Memoir "On the Treatment of Hydrocele with injections of a solution of Iodine, and trial of Acupuncture and Compression," it is stated that "the preparations of iodine, employed *topically* in cases of hydrocele, have been lately found efficacious in producing the absorption of the fluid whose presence constitutes that disease." With regard to the *topical application* of this remedy in cases of hydrocele, I think the claim to its first adoption clearly belongs to myself, for I cannot ascertain that a similar plan of treating this complaint had ever been practised prior to the publication of my case in THE LANCET of August 14th, 1835. At all events, I had neither seen it used, nor had read of its local application, in such cases, before the time at which I adopted its employment; but since that time a somewhat similar plan of treatment has been had recourse to by Dr. Hacket, of Newry, which is published in THE LANCET, of Feb. 15th, 1837. As Dr. Stewart claims a priority for Mr. Martin of Calcutta, for his first employment of iodine injections in the cure of hydrocele, and Mr. D. Lewis, of London, that of acupuncture, I think it will not be considered too presumptuous on my part to say, that I believe that mine is the first recorded case of a radical cure of hydrocele being effected by puncture, and the *topical application* of the hydriodate of potass. However, as those gentlemen claim their respective rights as to the precedence of the different plans first adopted and practised respecting iodine injections and acupuncture in hydrocele, it is but fair and reasonable that I should be allowed my claim of being the first to direct the attention of the profession to the *local application*

of the hydriodate of potass in the cure of the same complaint. In conclusion, I may observe that the case which I published in THE LANCET of August 14th, 1835, continues to be a permanent and radical cure. The case alluded to was thus treated in November, 1834. I am, Sir, your obedient servant, E. WILKINSON.

Aspatria, Cumberland, June 15, 1837.

SAINT JOHN'S BRITISH HOSPITAL.

A correspondent has addressed to us some particulars of an institution, entitled, "The Saint John's British Hospital," situated in Cross Street, a by-place in Hatton Garden, from which we gather the following facts; viz., that the hospital consists of a shabby dilapidated little house, apparently not large enough for one family, much less for the reception of sick persons enough to constitute the complement of even a small hospital; with the annexed imposing staff of medical officers:—

Honorary Physician. Dr. Thomas Castle.

Consulting Physicians. Dr. Hodgkin and Dr. James Clark.

Physicians. Dr. Charles Fox, Billiter-street, and Dr. Thomson, Hermitage Place.

Physician Accoucheur. Dr. Richmond, Red Lion Square.

Consulting Surgeons. C. A. Key, Esq., T. Callaway, Esq., G. Busk, Esq.

Surgeon. C. E. Jenkins, Esq., K.M., Gt. Prescot-street.

Assistant Surgeon. Thos. Beale, Esq., Philpot-street.

Resident Apothecary. Mr. H. W. Dewhurst.

Cupper. Mr. Joseph Staples, Half-Moon-street.

Surgeon Dentists. Messrs. Hunter and Twynam, Stanhope-street.

"Such a list," observes our correspondent, "would be sufficient for the largest endowed hospital in London." He intimates that Dr. Fox is the manager of the showbox in which these individuals expose themselves, like FANTOCCINI, to public view, for so much as that can get, directly or indirectly, from the gullible public; that there are often no cases in "the wards;" that patients, when prescribed for, are obliged to purchase the leeches which are ordered; that the usual means of cleanliness and light were cut off in March last, in consequence of non-payment of the water and gas rates; and, finally, that the inhabitants of the neighbourhood, one and all, regard the "hospital" as a gross humbug.

We can only add, for ourselves, that some of the parties described as constituting the medical staff ought to be thoroughly ashamed of the part which they are acting, as advertised officers of the humbug.

THE LANCET.

London, Saturday, June 24, 1837.

WE have the painful duty of recording in this place, the death of his Majesty, King WILLIAM THE FOURTH. The King expired between the hours of two and three o'clock, at Windsor Castle, on Tuesday last, the 20th inst. Previous to the decease of his late Majesty, King GEORGE THE FOURTH, bulletins, couched in mysterious and unmeaning terms, were published for the information of that liege monarch's subjects. Documents of a similar description have been issued within the last fortnight, relative to the bodily condition of his late Majesty, King WILLIAM. The character of those announcements is by no means creditable to their authors. Instead of communicating information to the public, they were evidently framed for the purpose of deception. If the community had derived no other knowledge of the state of the King's health than was imparted by these bulletins, the death of his Majesty would have been regarded as a sudden and unexpected catastrophe. If the bulletins be issued for the disgraceful purpose of practising a deception upon the community, we think that the public have a right to protest against the President of the College of Physicians lending himself to, or sanctioning, any fraud of so pernicious and scandalous a kind. There was not a menial connected with the Palace who did not know that his Majesty was in a state of extreme danger at the time when he was represented as having no urgent symptom of disease, and as being, although feeble, quite "capable of transacting the business of the country." The advanced stage of the disease with which his Majesty was afflicted, for a considerable period prior to his dissolution, will furnish the best proof of the delusion which was practised upon the country by the authors of the bulletins, on the late melancholy occasion. The due

discharge of our public duty requires that we should return to this subject on a more fitting opportunity.

The communications which we continue to receive from Dublin and other parts of Ireland, show the excited state of the members of our profession in the sister country relative to the medical provisions of the Poor Relief and Medical Charities Bills, which are now before the House of Commons. Whether the two measures will be pushed through Parliament under the new circumstances which have arisen since they were introduced into the House, it is impossible to state. The fact, however, concerning them will, in all probability, be announced before this number of our Joural can issue from the press. As they are at present constructed the members of our profession who are resident both in Great Britain and Ireland, ought to be influenced by the possibility, or, rather, the probability, that a powerful effort will be made to convert both of those Bills into Statutes, within the briefest period of which the forms of Parliament will admit. Certainly this precautionary view is the safest that could be adopted. The Poor Relief Bill has nearly passed through the ordeal of a Committee of the House of Commons, and the Medical Charities Bill, as we stated formerly, has passed through its first and second readings, without discussion, (be it remembered,) and on Saturday last, it passed through another form of the House, which was rendered indispensable in consequence of the many clauses which the measure contains.

With these facts before us, it is evident that within a very short space of time the two Bills may be transmitted to the House of Lords, and in less than a month both measures may become part and parcel of the law of the land.

In calling the attention of the medical public to the provisions of these documents, we have discharged no more than our duty, and deserve neither praise nor censure, although we have received both, for the course we have pursued. Had we not excited attention to the subject, it is now obvious enough that both Bills would have been converted into Statutes, without being subjected—at least the medical portions of them—to a single paragraph of criticism in any one of the medical journals. The general diffusion of this journal amongst the members of our profession has enabled us to communicate, within a comparatively short period, the astounding fact that ministers intend to place the government of the whole of the medical charities of Ireland, including all the hospitals and infirmaries, and their medical officers, in the hands, and at the uncontrolled discretion, of the Poor Law Commissioners of England and Wales. Assuredly a proposition of this nature was not to be allowed to pass without notice or comment, and, what is of still more consequence, the odious principle involved in this scheme has now received the merited reprehension of an indignant body of learned and honourable men.

We know not what may be the fate of these schemes with respect to the medical institutions of the sister island; but *this* we know, that such a project could not be successful, with reference to the hospitals and infirmaries of this country. In Great Britain, the members of the medical body are influenced by too determined a spirit to submit to such an ignominious, to such a vile, insult as is exhibited in this plan of Somerset-House invention. The governors of our workhouses, the keepers of our gaols, the beadles of our parish churches, are under a milder and more generous system of government than are the medical officers of our unions, whose places are put up to auction annually, under the benign and generous sanction of the three tyrannical Commissioners; the self-same men who are to be erected, by a statute of Parliament, into a controlling power over all the medical officers of all the medical institutions in Ireland. If such a proposal do not test the patience of, do not offer a deliberate

insult to, the members of *a learned profession*, what act, we ask, are we to consider as insulting? in what proposal are we to discover that their honour and their independence are attacked?

But the injury to the profession could be borne, might be rendered endurable, if the working of this new system were distinguished by any amount of public advantage. We all know that instances of individual wrong, grievous and ruinous as they are sometimes found to be, must be tolerated, rather than that a whole nation should sustain a loss, or be plunged into distress and misery: but in the instance before us, an inexcusable injury is inflicted, without establishing any but the most unsubstantial basis whereon a system productive of benefit may be instituted.

In England and Wales, only one set of medical officers has been subjected to the government of the Poor Law Commissioners; and the mode in which those lay officials have exercised the authority of the law, has been productive, throughout the profession, of nothing but disgust and indignation. Can the practitioners in the medical institutions of Ireland believe that they will be treated with greater respect, or more liberality, than their brethren in the Poor Law Unions of England? The rules and regulations of these said Commissioners will quickly test the strength of their belief, by subjecting it to a most painful trial. In the 47th section of the Poor Relief Bill, and in the 8th of the Medical Charities Bill, will be found nearly the whole of the noxious materials of those measures, so far as the medical arrangements are concerned.

As we apprehend that it would be useless, altogether unavailing, to resist the proposal for placing the medical officers of the *Unions* which are about to be established in Ireland, under the Poor Law Commissioners, the efforts of the profession should now be concentrated, and brought to bear with all their force, against the plan for extending the authority of the Commissioners over the government of all the hospitals and infirmaries, and all the other medical institutions, of Ireland. Against this attack the profession may still offer a powerful and successful resistance. The meetings which have been held, and the petitions which have been presented, have already operated with good effect, and have induced many of the representatives from the sister country, to consider that the medical officers of the public charities in Ireland ought not to be submitted to the authority and control of three lay Commissioners. It is now too late to hold other public meetings, and it is even too late to present *petitions* on the subject, but it is not too late for the medical practitioners of Ireland to address their representatives by *letter*, and to remonstrate, in firm and decisive language against the wanton and unwise scheme of the ministers of the crown. We would, therefore, earnestly recommend our brethren of the sister country, to write by every post, and entreat those peers and members of parliament with whom they may be acquainted, to resist the outrageous and daring project, and to withhold opposition only when the chances of success are completely annihilated. As we have already stated, the members of the Irish party in Parliament, could succeed in throwing out both of the obnoxious clauses, if they acted with firmness and unity in discharging their duty towards the medical practitioners of their country. If the 8th clause of the Medical Charities Bill were expunged, that measure might be rendered an excellent and effectual one; but as it now stands, in connection with the provisions of the 47th section of the Poor Relief Bill, it cannot fail to operate to the dissatisfaction, and, most probably, to the sacrifice, of many valuable privileges and interests of the medical officers of the public institutions in Ireland.

The Physicians and Surgeons of the endowed Hospitals of Dublin are to hold their offices as may suit the pleasure of the Poor Law Commissioners. *That* is a part of the scheme which has just been propounded by our executive government. Unhappily, the brazen boldness of the proposal is its only recommendation.

UNTIL the Medical Witnesses Bill was passed into a law, complaints reached us from all quarters of the wanton and oppressive manner in which medical men were summoned to attend at inquests held by coroners, in cases where their evidence could be of no possible value. So *regular* and *constant* was the practice of summoning gentlemen of the medical profession to attend at inquests, that the presence of a medical gentleman at every inquisition appeared to be an indispensable portion of the official inquiry. At last a law was passed, which provided that medical witnesses should be remunerated, in some degree, for the loss of time and trouble to which they were subjected in attending professionally at inquests, and, curiously enough, non-medical coroners then, *for the first time*, discovered that medical evidence at inquests was *not wanted at all!*

As we stated a few weeks since, when coroners think it right to receive the verdicts of juries without summoning the only witnesses who are capable of giving satisfactory and scientific testimony, statements of the cases should be drawn out, and transmitted to the magistrates in session, or to the treasurer of the county, with an entreaty that the fees to the coroners who have held such inquests should be disallowed.

Really the conduct of these non-medical coroners is becoming so obnoxious to every principle of common sense, and all the ordinary rules which should regulate a court of inquiry, that some powerful effort must be made to relieve the nation from the continuance of such a calamity. While means are devising for the application of this effectual general remedy, a check will be found, in particular instances, to the ignorant and obstinate misrule of these uninformed officers, *by the disallowance of their own fees*, beyond obtaining which many of them seem not to have a single object in holding an inquest.

A COPY of an advertisement from the "DIRECTORS OF THE LONDON MISSIONARY SOCIETY," which appears on the cover of the present Number of THE LANCET, has been sent to us for notice in this place. The Directors of the Society announce that they are desirous of making the talents of highly qualified medical men, and good operative surgeons, subservient to the introduction of Christianity among the immense population of China, and that they wish such men to pioneer the way for their missionaries in that vast empire.

Without at present expressing any opinion on the propriety of attempting to carry this project into effect, we should have yielded to the request of its promoters to lay a statement of the views which actuate the Society before the public, but we have not this week room for the document. We feel assured, however, that no members of our profession, with the fate of the medical emigrants to Russia, who a few years since left this country, and, more recently, of many of those who have visited Spain under the banners of the "British Legion," will *hastily* close with the proposals which the Society have to make.

POOR LAW MEDICAL CONTRACTS.

To the Editor of THE LANCET.

SIR:—How can the profession with consistency complain of the ill usage of the Poor Law Commissioners, when so many of its members lend their assistance in effecting the new Poor Law atrocities? The scientific and respectable portion of the medical profession ought to obtain and publish the names and particulars of education of the adventurers who have thus compromised the respectability of the whole body, especially those who have taken the beggarly contracts for the city of London unions. Something like a plausible plea was set up in the cases of provincial practitioners; namely, that a losing contract was accepted in order to keep interlopers from coming into a barren district. This excuse, urged, however, too often, where it was not a justification, cannot avail those who have injured us in London. They make us despair.

J. S.

NORTH LONDON HOSPITAL.

INTERMITTENT HEAD-ACH AND RHEUMATISM. EFFECTS OF THE HYDRIODATE OF POTASH.

J. B., laundress, was admitted April 25, under the care of Dr. Elliotson. Complains of head-ach coming on every other week, which, after continuing for two or three days, leaves an intermission of a week. It commences with vertigo, and shooting pains through the head, for a day, the pains afterwards becoming more fixed; sometimes occupying the whole forehead, sometimes confined to one supra-orbital region, attended with a sense of weight in the vertex, and an aching pain in the eyeballs. When these symptoms have become very intense, nausea and sickness come on, the matter vomitted being of a bilious or acid character; the pains then decrease, and soon altogether recede. During these attacks, she takes opening medicine, being of a very costive habit. The attacks have afflicted her during her whole life, but have been more frequent during the last two years than they were formerly. Catamenia ceased to appear seven months since. Her mother was subject to similar periodical attacks of head-ach.

The patient at present complains of pain and stiffness of the left shoulder and knee, and also in both wrists and elbows; having suffered from these pains, more or less, for two or three years. Latterly they have become so bad as at times to prevent her following her employment. Pains relieved by heat. Skin moist, tongue clean and whitish. Pulse 70, natural. Bowels confined. To be cupped over loins to eight ounces. Four grains of hydriodate of potash three times a day. A senna draught.

29. Has had no attack of head-ach; pains of the joints much the same. Increase the hydriodate to five-grain doses.

May 2. Joints better; a sense of weight in the vertex. Increase the dose to six grains.

16. Has been improving since last report. Discharged well.

RHEUMATISM, CONTRACTION, INDURATION, AND RIGIDITY, OF THE ANKLE JOINTS, CURED BY IMMENSE DOSES OF HYDRIODATE OF POTASH.

Richard B. was admitted December 2, 1836, under the care of Dr. Elliotson. He is a coachman, about 50 years of age, and of plethoric habit. He states, that about two years ago he was seized with pain in the head and every part of the body, but more particularly in the joints, accompanied by heat and tenderness, with fever. He was confined to bed for three weeks, and took medicine, after which the pains gradually abated in every other part except the feet and ankles; the pain in these has continued, more or less, up to the present time, rendering him unable to move about or stand without the aid of crutches. At present he has pain and tenderness in the feet and ankles, also of the elbow and wrist joints; the inner side of the right ankle has an ecchymosed appearance, and both feet swell after he sits up; the pain is neither increased nor diminished by heat; he has a slight cough; pulse 92, full; tongue white and dry; bowels regular; the ankle joints were swollen, indurated, and rigid, but not at all hot.

Dec. 3. Four grains of the hydriodate of potash three times a day.

12. He now takes seven and a half grains of the hydriodate at a dose. His feet and legs are stiff and sore, but less painful, and he can bear more weight upon them; these parts perspire a good deal during the night. He complained of some pain in the head, but this left him the following day.

Jan. 3, 1837. Now takes fifteen grain doses of the potash, it having been gradually increased. He can use his limbs better; feels no sickness or head-ach; general health good.

7. Can walk without assistance.

28. Now takes twenty-six grains of his medicine for a dose. His eyes smart a little; bowels regular.

Feb. 13. He is a good deal better, but complains of running from the eyes and nose; he is in no pain, except when he walks.

23. Walks better; no running at the nose; no pain in the head.

28. Complains of pain in the back of the feet when he attempts to walk. A blister to be applied to each foot, and to be kept open with savine ointment; to have half drachm doses of his medicine.

March 4. Much the same. The blisters did not vesicate much. Repeat the blisters; increase the dose to thirty-four grains.

25. Has continued to improve since last report. The blistered surfaces were very painful for some days, but now they are healed; walks much better. Increase dose to thirty-eight grains.

April 1. Has had a slight attack of pyrexia, which has now left him. To have forty-two grain doses of his medicine.

11. Ankles diminished in size; integuments of the right leg tight and hot; no sickness or purging. He now takes fifty-two grains of the hydriodate at a dose.

18. A little head-ach. Now takes a drachm of the hydriodate for a dose.

22. Pains all gone; no sickness; very much better; no discharge from the eyes or nose. Increase his medicine by four grains.

25. Head-ach all round the cranium; bitter taste in his mouth. Diminish his dose to seven and a half grains.

29. Head free from all pain; legs better. increase dose to a drachm.

May 13. Has continued to improve gradually and steadily since last report; he feels well and sleeps well, and can walk much better.

Discharged well on the 23rd.

In lecturing on this case, Dr. ELLIOTSON observed, that the cure was a striking one; it must, however, be remembered, that blisters on one or two occasions were employed, when pain was present. The good effects in the main were, however, to be undoubtedly ascribed to the hydriodate of potash. The large dose of the medicine taken, without the production of any ill effects, was also remarkable. A lady who had been under his care, took the medicine in question, in large doses, for a period of five months, during three weeks of which time her dose was a drachm three times daily, and this produced no ill effects. She had laboured, for a considerable period, under obstinate constipation, accompanied with great pain in the rectum. When clysters were used to move the bowels, the pain was most excruciating for some time afterwards. She was laid in bed for fourteen months; purgatives did not agree with her. Hydriodate of potash was ordered. She soon got rid of all pain, but was still obliged to have recourse to the use of clysters of cold water.

DISEASE OF THE META-TARSAL BONE AND PHALANGES OF THE GREAT TOE. OPERATION.

T. P., æt. 13, was admitted May 2, under the care of Mr. LISTON. Nine months since, in descending from a cart, the great toe of the left foot became powerless, and soon after lost all sensation. Upon his arrival at home he found the foot swollen, red, and painful. Eighteen leeches, and fomentations were applied, with the effect of relieving the pain, but the swelling remained unabated. At the end of three days the swelling was scarified in several places, but no pus escaped. The wounds healed rapidly. Leeches and linseed poultices were now applied, and he took mercury to ptyalism, from which time he gradually became worse. The parts around the great toe suppurated and discharged freely. In consequence of the ptyalism several portions of the superior maxilla exfoliated. Two months afterwards pieces of the meta-tarsal bone of the great toe, and of the first phalanx, escaped through the openings. The parts have continued to discharge up to the present time. His general health is not impaired. The foot is somewhat swollen, and the parts surrounding the meta-tarsal bone and the great toe have a reddish-brown appearance. There are several openings through the integuments, two over the situation of the meta-tarsus, and three over the first phalanx. He has not the power of motion in the great toe. Denuded bone can be distinctly felt through the openings by means of a probe. A free discharge continues. Mr. LISTON determined on removing the toe, together with the meta-tarsal bone, and the internal cuneiform, the articulation betwixt which was supposed to be in a diseased state.

May 3. *The operation* was commenced by making an incision with a strong, sharp-pointed bistoury, from the plantar surface, opposite the base of the metatarsal bone of the great toe, and carried forwards beyond the metatarsal phalangeal articulation, where the direction of the incision was changed, and continued on the dorsum of the foot, to a point opposite the commencement of the incision. The flap was quickly dissected backwards, and the knife made to pierce between the metatarsal bones of the great and adjoining toes, and was then carried outwards. By these means the great toe, with its metatarsal bone, and the internal cuneiform bone, which was implicated in the disease, were removed. The flap was brought together and retained by two points of interrupted suture. No vessels required ligature.

The metatarsal bone was perforated by numerous cloacæ, and was carious. The head of this bone and the distal articulating surface of the cuneiform bone, were in a necrosed state. The surface articulating with the navicular was quite sound. Isinglass plaster* was applied. The patient had a slight attack of the erythema of the leg, and two collections of matter on the dorsum of the foot formed, and were evacuated. He has since been going on favourably, the flap has united, and the swelling is subsiding.

WESTMINSTER OPHTHALMIC HOSPITAL.

CATARACT OF BOTH EYES.

John Siberley, ætatis 76, has cataract in both eyes; the right eye was first operated upon, on the 15th March. The patient was very unquiet during the operation, and all the aqueous humour escaped during the extraction. The incision being completed, the lens slipped out immediately. A smaller cut was afterwards made in the left eye, and that lens was extracted with a hook. At night, he complained of pain in the head, and flashing of fire before his eyes. He was bled to 12oz. at 6, P.M. At 11, P.M., he was again bled to the extent of 8oz. Moist pled-

* This plaster is now prepared by Messrs. Fisher and Toller, chemists, Conduit-street, and only requires to be moistened by warm water previous to its application.—REP. L.

gets were constantly applied over the eyelids, and secured by a light bandage.

March 21. He was cupped yesterday to 12oz. The pulse has all along been strong. The state of the eye has not yet been ascertained, it not being desirable to disturb the parts by an examination. He has had calomel and opium pills, with simple salines administered to him, at proper intervals.

24. Œdema of the right palpebræ, which are tender to the touch. He is quite free from pain to-day. He complains of debility, although his pulse is strong.

From this time the patient steadily improved till the 30th March, when it was deemed expedient to apply the *vinum-opii* drops to the eyes.

April 21. He is discharged this day, being anxious to return home: with the right eye he can see the time marked on the dial of a watch. The left eye is not quite so much recovered.

CONGENITAL CATARACT CURED.

1837. John Stout, æt. 7, admitted the 2nd February, with congenital cataract in both eyes; both the lenses were depressed.

On the 15th March, he was re-admitted, and the remainder of the lens was this day broken up. The belladonna drops were put into the eye immediately after the operation, and ordered to be repeated every night and morning.

March 19. No inflammation has occurred. The extract of belladonna is rubbed in over the brow. In this case the couching needle was introduced a line behind the circumference of the cornea.

22. Discharged to-day. Not the slightest inflammation occurred. He can see perfectly.

LONG CONTINUED CATARACT.

March 15, 1837. Mary Alford, had a hard cataract for two years in the right eye; her age is 35. This day the lens was cut up by Mr. GUTHRIE, and dispersed through the two chambers. The belladonna solution used, as usual. At 8 o'clock in the evening, a little pain was felt by the patient. She was bled to eight ounces, blue pill, and colocynth, and a black draught administered.

21. She is going on well. She has no pain, and sees across the room.

27. She goes out to-day. This case was characterized by the mildness of the sympathetic symptoms. A small piece of the lens remains undissolved. She can see St. Martin's clock from the hospital window, but cannot tell the hour.

DIVISION AND DEPRESSION OF A HARD CATARACT.

March 17, 1837. Stephen Sherwood, aged 51, admitted the 1st March, with a hard cataract. Mr. GUTHRIE operated upon him this day. The lens of the left eye depressed. The solution of belladonna produced a little pain. The patient was bled in the evening, to the extent of 12 ounces. Aperient medicine was given next morning.

21. He is quite free from pain, the broken-up lens is dissolving.

29. He was cupped to-day, on the left temple, to the extent of 10 ounces, in consequence of the redness of the eye; and also to quicken the process of absorption.

May 10. He continued to improve till this date, when he goes out and departs for the country. A small portion of the lens is still undissolved, but he can see across the road, and distinguish objects at that distance. He can see St. Martin's clock from the street, but cannot tell the hour.

If any untoward symptoms occur, the patient is to return from the country, when it is supposed the pure air will quicken the absorption of the remaining lens. This case is remarkable for the almost entire absence of pain during all the stages of the treatment.

CONGENITAL CATARACT.

March 15, 1837. Edward Dwyer, seven years old, had a congenital cataract in both eyes. He is an idiot. The lens of the right eye depressed; no inflammation followed the operation.

19. He can see partially.

20. His mother took him away to-day. By his pantomimic kind of language, he made it evident that he could see a little.

CATARACT TREATED BY THE TURNBULL REMEDIES.

Franci Penton, æt. 16, from Swanscomb, Kent, admitted 1st May, 1837. He is a stout, healthy boy; he has congenital cataract in both eyes. Up to the period of his admission he was able to distinguish objects.

On the 29th July, 1836, Mr. Guthrie broke up the lens of both eyes; the operator observed on this occasion, that the capsule was a good deal thickened.

Aug. 17. The boy has been tolerably free from pain to this date, but as the process of solution is rather inactive in the right eye, Mr. Guthrie repeated the operation, breaking up the fragments of the lens into still minuter portions. On the 28th of August he is reported to have been able to distinguish the light of a candle, but with the left eye only.

In November, 1836, he returned into the hospital, being able to distinguish light. At this time he was subjected to Dr. Turnbull's *attrition* remedies. When this process was terminated, the patient could not see at all. He left the hospital at the end of December, and has continued blind ever since.

He now waits for a plan of treatment to be adopted by Mr. Guthrie. His general

health is good. He has a singular irritability in the eyelids, especially when touched. This irritability has been greater since the application of Dr. Turnbull's remedies. He can open his eyes himself, but he cannot hold them open. The tunics of the eye appear beautifully clear and perfect. The pupil of both eyes is very large. He is not conscious of the presence of light; he cannot tell whether his face is turned towards a window or from a window.

He was rubbed on the forehead by Mr. Lyon, the amanuensis of Dr. Turnbull, every day. The liquid was altered every alternate day. A sensation of burning was created in the part rubbed, and this lasted for several hours. Neither the appetite nor the rest of the patient was disturbed by the Turnbull process.

MR. BEDINGFIELD'S CASE OF RUPTURE OF THE BLADDER.

To the Editor of THE LANCET.

SIR:—THE LANCET of the 10th instant (containing some observations upon a midwifery case which appeared in the preceding number), only reached me this morning, or I should have sooner noticed the invidious attack of your anonymous correspondent. It is not, however, for his satisfaction, but in vindication of my own character, that I reply to the questions which he has, in a confused style, put, with great rudeness, and answered with equal falsehood.

I repeat, that neither "*previous* to, during, nor subsequent to, parturition, had any circumstance occurred, &c.," from which any *candid* reader would have inferred what was really the case, that, up to the period of delivery, the functions of the bladder had been regularly and naturally performed.

I have further remarked, that although Mrs. Y— was attacked with some degree of pain, and rigors, *twelve* hours after delivery, yet, that they did not excite "particular attention,"—not attention enough to induce the patient to send for my assistance. She only informed me of the circumstance on the following day (the day after her delivery), when I found her in the state I have described.

I then first heard of her having experienced difficulty in making water, and *immediately* passed the catheter. The only error into which I have fallen is, that I have stated "that I bled her, and passed the catheter." It should have been, "I passed the catheter, and then bled her." After this explanation, what becomes of your correspondent's wilful perversions and false assertion, that no catheter had been passed? &c.

Had this writer's criticism been only captious, or satirical, I should have passed it over, or have answered it differently, but such as it is, I challenge him as a calumniator who is ashamed to put his name to the slanders which he has circulated. I have the honour to remain, Sir, yours very respectfully,

J. BEDINGFIELD.

Medical School, Stowmarket,
June 19, 1837.

IMPERFECT INQUEST AT ROTHERHITHE.

To the Editor of THE LANCET.

SIR:—Permit me to send you the particulars of another imperfect inquest, which has recently been held in this parish. On the night of Thursday, the 8th instant, a basket was picked up on the banks of the river, containing a new-born infant, with the placenta. An inquest was held on the body on Saturday afternoon, by Mr. Carter, and a verdict returned to the following effect:—"Found in the river, but how it came there is not known." No medical evidence was called to inquire whether the child was born alive or dead; or, if alive, in what manner it came by its death.

I will only suppose, by way of argument, that, some two months hence, a woman is found, at some distance up the river, who was delivered privately of a child at about the time above mentioned. Suppose, farther, that the basket is proved to have been in her possession. The next question would be, was this child born alive or dead? to decide which, the coroner's verdict is referred to, and the officers of justice are very much edified by the astounding information that the body was "found in the river;" and the woman is probably acquitted on the strength of that statement!

Surely the public might be spared the expense and mockery of coroners' inquests, of which this is a sample; and the supposition is not exaggerated.

I have heard that a body was found, under similar circumstances, in the parish of Bermondsey, a week or two since. Perhaps some one of your readers will inform the public whether medical evidence was called in that case. I am, Sir, your obedient servant,

JUSTITIA.

*** Our correspondent has authenticated his statement, by sending to us his name and address.—ED. L.

BREACH OF PROMISE.

To the Editor of THE LANCET.

SIR:—The moral courage which you have at all times shown in lending your pages to the exposure of delinquency, in whomsoever, or to whatsoever extent, it may have appeared, entitles you to the gratitude of every member of the profession who wishes to uphold its respectability and honorable character; and what is, perhaps, equally complimentary to you, to the hearty abuse of those who, caring not how much it may be disgraced, are kept in salutary restraint by your efforts to this effect. There is but one mode of reaching this latter class of persons. Unmoved by the most spirit-stirring appeals to maintain inviolate the high reputation which ought to attach to a profession which is second to no other in scientific importance, they are sometimes moved by the dread of public exposure.

It too often happens, however, that petty offences are committed, in the expectation that the party who is wronged will silently submit to the wrong done, rather than take upon himself the trouble, or the duty which he owes to others, of making that exposure known, which kind of culpability I do not wish shall be chargeable upon myself, and with your permission, Mr. Editor, I will briefly state the following particulars of an imposition which has just been practised upon me; it will show the danger of relying too much upon the "honour of a gentleman," or, rather, of measuring the meaning of those words by the usual standard of interpretation.

About six weeks ago, being about to remove into my present abode (but a very short distance from my late residence in the Lower-road, Islington, where I had lived and practised as a surgeon for the last eight years), and being naturally solicitous that my interest in that neighbourhood should not be prejudiced by the appearance of a rival practitioner, I agreed to let my late residence to an applicant of the name of Frederick Dawson, who represented himself to be simply a chemist and druggist. I explained to him the objection which I had of a *Surgeon* taking it; he then renewed his assurance, and rectified its truth, by pledging his word of honour, as a gentleman, to the fact, declaring that his future business there would be merely carried on as a *Chemist and Druggist*. I, of course, could not doubt the truth of his statement, nor did I doubt it for one moment; but what will you say, Mr. Editor, on hearing that this honour-pledging "Frederick Dawson" appeared emblazoned in front, with the formidable words "Surgeon and Accoucheur" appended, instead of those which I had expected, namely, "Chemist and Druggist."

At the commencement of my professional career, I paid several hundred pounds to the surgeon whom I succeeded, in those identical premises, for his medical practice and introduction, and as I was actuated by no mercenary feeling to reimburse myself for any portion of my original outlay, nor was I guilty of any fraudulent trick in any part of the transaction with my *honourable* successor, it is certainly hard that I should have been treated so unhandsomely by a member of a liberal profession.

It remains with you, Mr. Editor, to give to this affair all the publicity in your power; by so doing I sincerely hope that it may be the means of deterring others from acting in the same dishonorable manner towards their medical brethren.

Two very respectable persons accompanied Mr. Frederick Dawson to my house; one, I believe, is a Surgeon residing in Whitechapel; the other a Chemist, in Crown-street, Finsbury-square; both of these gentlemen I believe to be too honourable to have countenanced their friend in any fraudulent transaction. No reply will be made to this. I am, Sir, your's truly,

RICHARD HARDY, M.R.C.S.

8, Gibson-square, Islington,
21st June, 1837.

MILITIA ASSISTANT-SURGEONS.

To the Editor of THE LANCET.

SIR:—Having seen lately several letters on the subject of the assistant-surgeons of the navy and army, I beg leave, through the medium of your extensively circulated journal, to prefer the claims of the same class of officers in the militia.

Whilst serving our two years in Ireland, towards the close of the war, it was said that Sir James Macgrigor intended to recommend an increase of the small peace-allowance, on our disembodying. I am one of a numerous class of this grade, who, from some urgent family reason, found it necessary, at great disadvantage, to relinquish private practice, with the hope of succeeding, in due course, to the surgeoncy: but failing in this, from no vacancy occurring, although fully qualified, I should hope our claims will not be entirely overlooked when the consideration of Government is graciously extended to the departments above mentioned. I am, Sir, your constant reader,

M.R.C.S.,
And a twenty-three years Assistant-Surgeon of Militia.

June 16, 1837.

IMPERFECT INQUEST.

To the Editor of THE LANCET.

SIR:—I was requested by the Overseer (being Town Surgeon) to visit a man who was lying at a public-house in this town very ill. I found him with the following symptoms:—Pulse very small, weak, and undulating; countenance very anxious and ghastly: on asking him if he had pain, he referred me to his abdomen, which I found very tender generally, and presenting to the touch a very peculiar feel, something like what is felt where effusion of blood has taken place. He said that he had been crushed by a boat (in what is called a lock) against the wall, five days before; that it was a wonder it did not kill him on the instant, as it turned him round several times; and so on.

I ordered fomentations to the abdomen, gave him a cordial, and left word that he must be well looked after, as it was probable that he might die. He had made plenty of water, and his bowels had been opened freely during the day. This, I forgot to say, was on the 2nd of May, at half-past ten, P.M., when I was called to see him, and at half-past three, A.M., he died, being previously strongly convulsed. The coroner was out of town, and did not arrive at home until the afternoon of the 4th of May, when he summoned a jury for half-past five o'clock, and, after a hurried examination, returned a verdict of—"Died by the visitation of God."

This man, after the accident, told me, as well as others, that he was a Shropshire man; that he sustained the accident in Northamptonshire, and had come along with his boat, which is one of the long narrow ones, down the canal to Manchester, and then to this town *after the accident*. Here he sought lodgings, being unable to proceed farther; and after being so lodged one night, and being without sufficiency of money to make any farther payments, he travelled out, was taken ill, almost opposite the very lodging-house, fell down, was taken up by some watermen and conveyed to the public-house, and there died, as before stated. Upon the inquest, it was stated that he had said that he had been ill during nine weeks, and that he had also said that he had been kicked by a horse. Be this, however, as it may, I never was summoned by the coroner, nor was my opinion asked as to what I thought was the cause of death.

Now, Sir, I wish to ascertain from you whether there is any remedy for such a proceeding. Is it illegal or not? One of the jurors told me that the coroner asked the jury if they were satisfied with the evidence already adduced, or whether they would require the presence of the medical man. But the coroner invariably states that *he is satisfied*, and thus biasses them. They also expressed themselves satisfied, and thus ended the business. "Died by the visitation of God!" Why, he might have been poisoned! I am, Sir, your most obedient servant,

A SUBSCRIBER TO THE LANCET.

Yorkshire, May, 1837.

The man was not known to any person in this town, neither was his name ascertained. He was buried, of course, by the parish.

*** The name and address of our correspondent were forwarded to us with this communication, the publication of which has been accidentally delayed until the present week. However, a reply to the question which it contains must have been derived by the writer some time since, from the remarks which we have made on such inquests. At all events, in this Number of THE LANCET will be found sufficient present comment on the subject.—ED. L.

CORRESPONDENTS.

We shall find room for the statements of Dr. Weatherill.

The communication of Dr. Roland has reached us, and shall appear.

The sick poor relief plan of Dr. M'Cabe reached us, and we have received that of Mr. Bedingfield, from the secretaries of the Provincial Medical Association Committee; but have not yet had room for their insertion.

The next Annual Meeting of the Provincial Medical Association is advertised, with the published works of the Society, on the cover of this week's LANCET; and we have been requested to draw attention to the announcement in this place.

As our correspondent, who speaks of a ball-frog writer, is, we assure him, quite mistaken in his supposition, we have not published the remarks which he thought it right to make on the party in question.

Mr. Lindlay. The question is, at present, one of time and apprenticeship, as well as money. If he desire to practice as an apothecary, the apprenticeship will be necessary; so much depends on his decision on this point, that we cannot further reply to his questions until his resolution be taken. However, an improvement in the law may, before he can be prepared, by the acquisition of knowledge, to practise medicine, award to the possessor of intellectual wealth, the honours and privileges which at present can be acquired by the ignorant purchaser of tickets and certificates.